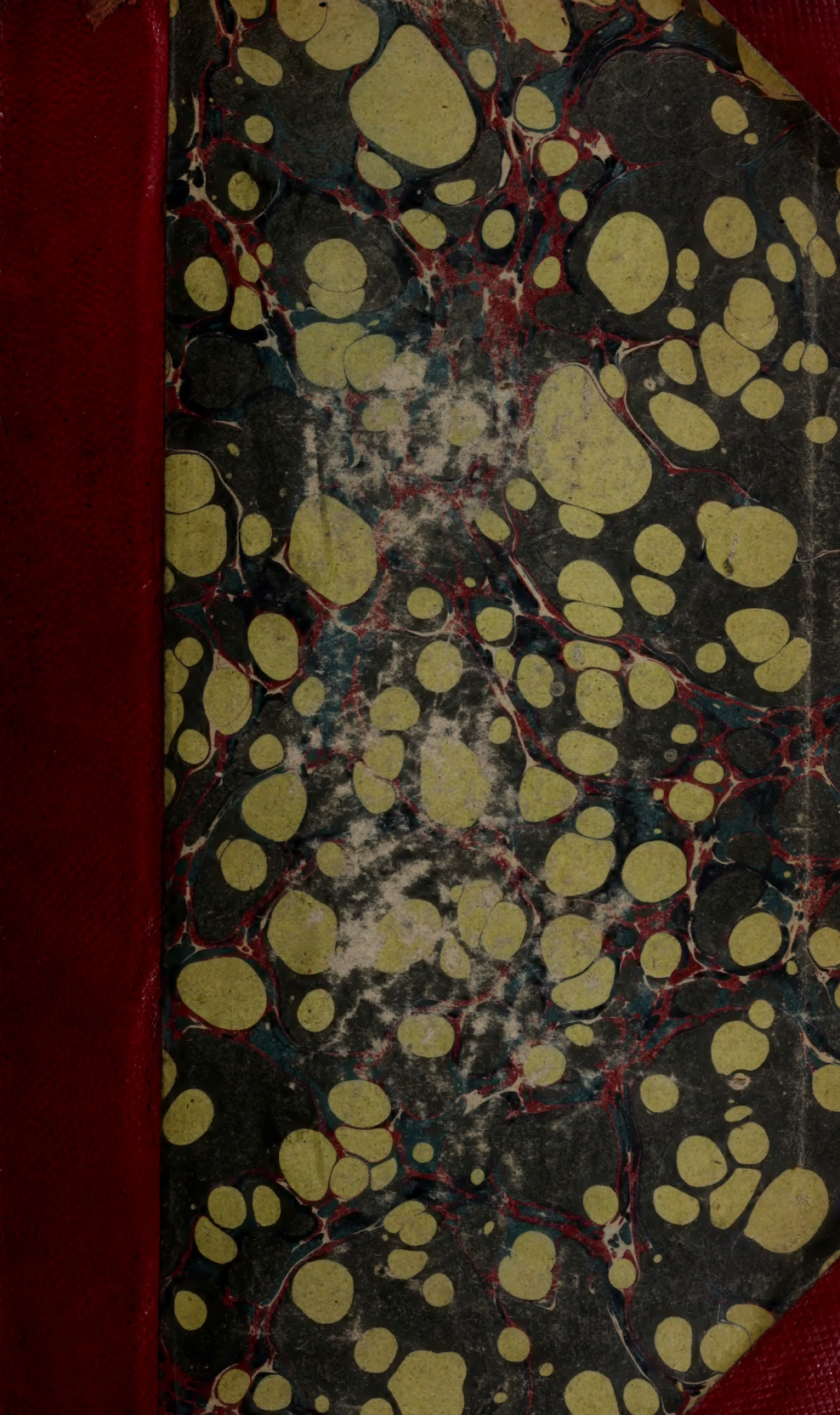

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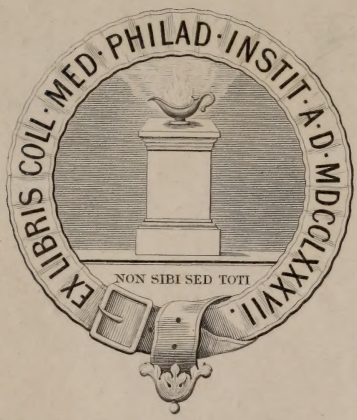

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THE CHICAGO

MEDICAL EXAMINER,

A MONTHLY JOURNAL DEVOTED TO THE

EDUCATIONAL, SCIENTIFIC AND PRACTICAL INTERESTS

OF THE

MEDICAL PROFESSION.

EDITED BY

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PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE, IN THE CHICAGO MEDICAL COLLEGE, ETC., ETC.

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CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, MD, EDITOR.

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Original Contributions.

ARTICLE I.

THE MECHANICAL TREATMENT NECESSARY IN INFLAMMATION OF THE KNEE-JOINT; WITH A DESCRIPTION OF A NEW APPARATUS FOR MAKING EXTENSION.

BY JULIEN S. SHERMAN, M.D., Chicago, Ill.

The exposed position of this articulation, the thinness of the tissues surrounding, and the amount of labor performed by it, render it a very frequent seat of those diseases and deformities consequent upon injury. Inflammation of this joint is generally more severe and disastrous than of most others, on account of its large size and the extent of the synovial sack involved in the disease. The well-known pathological fact, that inflammation of joints is always followed by reflex contraction of the muscles in its vicinity, is well exemplified in the knee by the strong contraction of the powerful flexors, bending the leg frequently to a right angle with the thigh.

The injurious effect of pressure is also well shown, and the necessity for its removal as urgent as in hip-disease. Specific inflammations are sometimes met with, but are not as frequent as generally supposed, most cases being traumatic in their origin. Yet inflammations occurring in constitutions either scrof-

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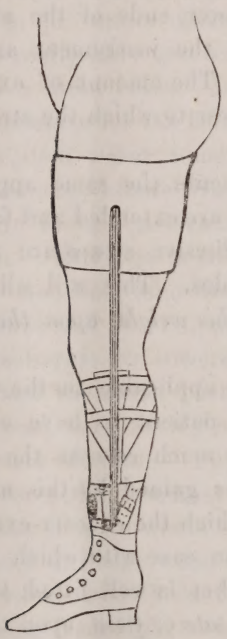
ulous or syphilitic, are more prone to suppuration and caries than when this element is absent.

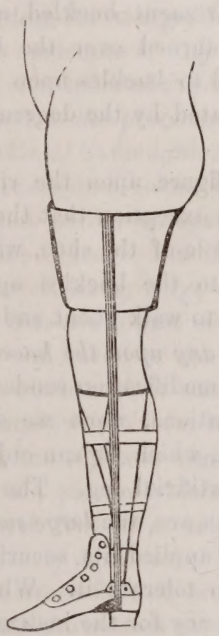
Notwithstanding the advantages of medical treatment, there are indications which must be overcome by mechanical means. They are not only necessary for subduing disease in its early developement, but are indispensable for the correction and prevention of deformities following in severe cases. Inflammation of this joint, even in its first stage, is always accompanied by contraction of the flexors, aggravating the pain and increasing the pressure, thereby either wholly preventing, or greatly retarding, spontaneous recovery. This contraction increases with the violence of the inflammation, and should be overcome by tenotomy of all the tendons offering resistance to the extension of the limb. If ether is administered, the particular tendons requiring division should be ascertained before anæsthesia is produced, as, when that stage is reached, the muscles become relaxed, and we may be at loss to determine where division is necessary. Special care must be taken to avoid wounding the peroneal nerve, situated just internal to the biceps tendon. This tendon should be divided from without inwards, at the same time that extension is being made, the sheath and inner fibres of which will then be ruptured before the knife passes completely through, and all danger to the nerve avoided. The limb should then be placed upon an air-cushion, protected by oil-silk, in order that local dressings may be used without soiling the bedding.

The relief of pressure in inflamed joints is the most important part of the treatment; the diseased surfaces must be separated to allow of recovery or to prevent unfavorable results. The means for accomplishing this desired end are strictly mechanical. Adhesive straps may be applied to the leg, below the knee, and the surfaces of the joints separated by making extension with the pulley and weight, as in adhesive strap dressing for fractures of the thigh. The limb may be placed in the horizontal position or upon an inclined plane, as circumstances may indicate. This treatment will be found to greatly relieve the pain and entirely remove the pressure. If it be adopted at

the outset of the attack, the flexing of the limb will be prevented and division of the tendons rendered unnecessary. Should suppuration occur and the joint become greatly distended with pus, it should be carefully evacuated by means of a trochar, avoiding the admission of air into the synovial sack, and the extension persevered in. Moderate pressure upon the femoral artery is advised by good authority, as diminishing the flow of blood to the part, but it is difficult to maintain and frequently adds to the discomfort of the patient.



Dr. Sherman's apparatus for making extension at the knee-joint.



The same, with the side rods extended to the sole of the shoe.

The accompanying cuts represent an apparatus for making extension. It consists of a *wooden socket*, constructed to accurately fit the thigh and similar to those used for artificial legs, against this the counter-extension is made, and thus evenly distributed over the thigh and tuberosity of the ischium. A steel rod is attached to each side of the socket, reaching to within a few inches of the ankle, and the two rods are joined behind by

a broad band of sheet-iron, which is moulded to fit the posterior part of the leg; on the front, and joining the sheet-iron band, is a strap which, being buckled, holds the leg firmly in the apparatus. It is applied as follows:—Six adhesive straps are cut, two inches in width at the top and tapering to one at the bottom, and should be long enough to reach from about one inch below the knee to the ankle; they are then applied to the leg, as represented in the cut, and secured by a bandage; the socket is then placed upon the thigh, the strap at the bottom of the instrument buckled, and the lower ends of the adhesive plaster turned over the bottom of the instrument and also attached to buckles upon its sides. The amount of extension is regulated by the degree of tightness to which the straps are drawn.

The figure upon the right represents the same apparatus, with the exception that the side rods are extended and fastened to the sole of the shoe, while the adhesive straps are also attached to the buckles upon the sides. This will allow the patient to walk about and bear *all his weight upon the socket and not any upon the knee-joint.*

This modification renders it more applicable to the chronic inflammations, when we desire the patient to have out-door exercise, which he can enjoy with as much ease as the wearer of an artificial leg. The advantages gained by this mode of extension are, the *large surface* to which the counter-extending force is applied, its security, and the ease with which the patient can tolerate it. When the socket is well fitted, there is no tendency for the instrument to *rotate* or *twist* upon the leg. This same principle can be used in the construction of numerous instruments for the relief of deformities of the knee.

ARTICLE II.

A PAPER ON EPIDEMICS.

BY H. NANCE, M.D., Kewanee, Ill.

Read to the Military Tract Medical Society.

Having been selected by this Association to report, at the semi-annual meeting, at Galesburgh, on Epidemics and Endemics, I owe an apology for not making this paper more interesting. I cannot make it interesting, for the good reason, that we really have not had a severe epidemic, of any disease, for two or three years. In taking a retrospect of the health of our community for the last two years, I would pronounce it unusually good. Our community, I think, have suffered much less than many others situated quite contiguous to us; this may be owing to the particular topography of our village and its environs. Kewanee is situated on the Chicago, Burlington, & Quincy Railroad, immediately on the dividing ridge between the Illinois and Mississippi Rivers. The south part of the village discharges its sewers into the tributaries of the Illinois River, and the north part enter the tributaries of the Mississippi River, thus leaving us almost entirely free from any stagnant pools of water. Physicians advocating a miasmatic origin of the usual autumnal fevers, would promptly come to the conclusion that we would suffer but little from this class of diseases, and this conclusion would be nearly correct.

Our village is underlaid with an immense field of bituminous coal, being from eight to ten feet below the surface to eighty or ninety feet, according to the grade of the land. How far this mineral or vegetable production may affect the health of our community, I shall not pretend to say; I will only remark that the health of our mining population is equally as good, if not better, than that of the rural population, who are engaged in cultivating the soil. I think they are remarkably exempt from koino-miasmatic diseases. It is very unusual to see any of them suffering with intermittent diseases; and I can say the same of typhoid fever. I have resided here more than six

years, and during that time I do not remember of having treated a case of typhoid fever in the house of any miner. In the fall of 1864, I treated about a dozen cases of genuine typhus fever in the mining region, but it was introduced by a patient brought from off a ship sick with the disease, and from this case the others originated.

Notwithstanding we are on the dividing ridge between the two great rivers, and that our county is nearly all underlaid with coal, which may have a modifying influence upon the various epidemics of our county, yet we occasionally have epidemics. We have had cerebro-spinal meningitis, typhoid fever, measles, pertussis, dysentery, and, probably, some other diseases prevailing as epidemics since I have resided in Henry County; and I should not fail to mention the general prevalence of intermittents, remittents, infantile diarrhœas, and general derangements of the alimentary canal of children, usually under two years of age. During the winter, when the weather is mild and the atmosphere is overloaded with a redundancy of moisture, pneumonia and bronchial affections always prevail. Phthisis pulmonalis is becoming a much more general disease than it was at the first settling of the country, and I am sorry to add, with all our improvements in medicines, including the vaunted remedies, *oleum jecoris anselli* and the *phosphites*, that tuberculosis advances as rapidly as it did before the introduction of these *lauded "specifics."* I mention these remedies, not to entirely condemn them, but to put the young and inexperienced practitioner on his guard, not to place too much confidence in them when prescribing for his phthisical patient.

There is, doubtless, a tendency on the part of some of our leading physicians to eulogize the virtues of some of our medicines too much. This excess of praise of these remedies is confined principally to professors in our medical colleges, in order to create a reputation, not only for themselves but for their institutions. I am frequently disgusted in reading in our medical journals of some remedy being recommended so highly for some epidemic which is prevailing at the time. Who of you now believe that the phosphites will eradicate tuberculosis, ren-

ovate the general system, and make a healthy, athletic man of a poor anæmic person? Who of you now believe that cod-liver oil is a specific in all pulmonary diseases? I tell you, gentlemen, that we should not be so easily deceived by pretenders in medicine who are trying to build themselves up, nor by professors in our medical colleges who are using every effort, not only to enhance their own reputations, but the reputation of the institution they represent. Look guardedly to the interests of your patient, and let us not vie with those who would rise to fame in their profession, regardless of the good they may do in curing their patients.

We would not regard consumption as either an endemic or epidemic disease, but as it frequently becomes a sequel of bronchitis, pneumonia, pleuritis, etc., especially in persons possessing a hereditary taint, I mention it in this connection. Since the introduction of auscultation and percussion by LAENNEC and LOUIS, we have had but little difficulty in diagnosing pulmonary diseases. At the early stage of the formation of tubercle, some difficulty may be experienced, but when we look to the general symptoms, including quick pulse, general wasting of the fatty tissues, cough, especially in removing the clothing on going to bed, occasional night sweats, and repeated attacks of hæmoptysis, we may most certainly come to the conclusion that our diagnosis will be correct if we call the disease consumption. But when we have properly applied the stethoscope, or used immediate auscultation, a doubt no longer remains.

I would dismiss the subject of phthisis, by hastily mentioning the treatment in general. Out-door exercise, when the weather is pleasant; good, rich diet, including meat of various kinds, also eggs, butter, and milk; I would give my patient but little medicine if he was comfortable; treat the urgent symptoms as they arise; if the cough troubles him much, give him a mild expectorant combined with an opiate—the latter will do more good than all the expectorants treated of in the U.S. Dispensatory. My usual form for an expectorant in phthisis is, morphia sul. grs.vj., aqua ℥ij., shake and add syrup ipecac. syrup tolu āā ℥ij., tinct. sanguinaria ℥j., mix, and take one teaspoon-

ful every 20 or 30 minutes, until the cough is relieved. When hectic symptoms make their appearance, I find much advantage from quinine with aromat. sul. acid, given in the stage of apyrexia. The hæmoptysis, I would treat with acetate plumbi et sul. morphia, nit. potash, minute doses of tart. anti. et pot., or, sometimes, a teaspoonful of common salt, swallowed suddenly, will promptly arrest it. The patient should be kept quiet, with his head and shoulders raised up in bed, jugs of hot water to his feet, and sinapisms to the thoracic region; cold drinks should be used, and the patient cautioned not to exercise much, not to cough, only when involuntarily compelled to, and to avoid the habit which many phthisical patients have of *hawking*. My general treatment, if any is thought advisable, would, of course, be stimulating and tonic. I would permit the use of wine, good stock ale, and would not discourage the use of good cognac brandy and milk, made in the form of egg-nog or milk-punch. I have sometimes given, with apparent advantage, Nich's prep. cin. and ferri. But I would remark that I have but little confidence in any general treatment. Good warm clothing; flannels next to the skin, and the general hygienic rules which all physicians are supposed to understand, is the safest course, in my opinion, we can pursue in this dreadful disease. My own observation has taught me that patients treated on this plan have lived as long and suffered as little as those who have been the victims of Rushton & Clark's spurious cod liver oil, or Prof. Churchill's phosphites.

In leaving the subject of phthisis, I touch on other pulmonary diseases, and the first I mention is hooping-cough. This disease has prevailed somewhat as an epidemic for the last six or eight months; there have been no peculiarities attending it; most of the cases have been light and uncomplicated; but few cases have required the protracted visits of the medical attendant. My treatment in uncomplicated cases has been an expectorant composed of com. s. scillæ, with syrup tolu, and tinct. opii camph. It has been rarely necessary to administer any laxative or cathartic. I am down on all specifics for this disease. The idea advanced by some of our medical men, that

cochineal, belladonna, nitric acid, and several other vaunted remedies, will cut short the disease we are considering, is all *bosh*, as the politicians say. Treat the disease as a pulmonary, self-limited one, and our rational is correct.

Complicated cases of hooping-cough are always serious, especially when connected with diseases of the brain. Arachnitis, with effusion, is apt to follow; then come spasms, general convulsions, and death. Our treatment should be shaped to meet these symptoms as they arise, and I would refer you all to diseases of the brain, for treatment under their proper heads. During the late epidemic I had the misfortune to have two such cases come under my care, both of which died. All the symptoms of arachnitis presented themselves before death, including severe convulsions, hæmaplegia, blindness, etc., etc.

Catarrhal fever, or acute bronchitis, prevails in this section of country every winter and spring. It is confined, principally, to children under eight or ten years of age. The prominent symptoms are dry, hacking cough, quick pulse, flushed face, dry and hot skin, white or yellow fur on the tongue, bowels usually constipated, slight mucus râle. If the disease is neglected it results in pneumonia; then we have added to the physical symptoms dullness on percussion, with complete bronchophony, or in milder cases crepital râle. Occasionally I notice rusty colored sputa, though this latter is very rare. My treatment is simple and successful. I very rarely loose a patient with it, and when this does occur it is when complicated with pneumonia, as the bowels are constipated, and the liver in an unhealthy state, which is evinced by the light or green colored operations. I give to a child, two or three years old, a laxative composed of grs. iv. hyd. clo. mite., rhei pulv. grs. xv., mag. calc. grs. v., mix and divide in chart No. 5, one every four hours, until the bowels move. After administering one or two of these powders I prescribe an expectorant composed of com. syrup scill. ℥iij., tinct. opi. camph. ℥j., mix and give from one-quarter to one-third teaspoonful every hour and a half. If the child has a high grade of fever, which is generally the case, I give one or two drops of the tinct. veratrum in each alternate

dose. This treatment, with very little variation, I have found very successful in these catarrhal or pulmonic diseases, usually styled catarrhal fever, pneumonia, or acute bronchitis of children. Adults are very rarely thus affected, if they have catarrhal fever. It is usually severely complicated with pneumonia or acute bronchitis, and sometimes congestion of the lungs, making it a case of serious import, which should be met according to the type of the disease. The idea of treating all cases of pneumonia with quinine, or all cases with tart. anti. et pot., or with tint. ver. viride and venesection, epispastics, etc., is nothing but empiricism; and he who pursues such a course must expect to hear the church-bell tolling over his misfortunes, and he need not be surprised, in a short time, to find himself preparing to emigrate.

Congestion of the lungs rarely appears as an epidemic. Let it appear either sporadically or epidemically, it is always a serious disease, and much depends upon the good judgment of the intelligent practitioner to combat it successfully. At one time, it might require the free use of the lancet, and upon this, nearly alone, should we depend; at another time, as we might expect, the free use of quinine, or the more diffusible stimulants, carb. ammo., or wine, or even good brandy; sinapisms, or epispastics should be freely applied over the lungs. When the lips become purple, the mind inactive, coma and somnolency making their appearance, the breathing becoming stertorous, let the pulse be either full and slow, or quick and feeble, you may soon expect dissolution. There is one symptom, indicating nearly certain death, not confined entirely to pulmonary diseases, and that is the rising and falling of the *pomum Adami.* When you observe this symptom, let other symptoms be as they may, you can quite safely pronounce your patient in, or not far from, *articulo mortis.*

Twenty-one years ago, when I first entered the profession, pleuritis was quite a frequent disease, but it has grown less and less frequent, until it is almost unknown. The lancet and opium were our sheet-anchors. The disease, in my practice, hardly known any more. Can any of you assign a reason why?

In the winter of 1861–2, diphtheria made its appearance, not only in Henry County, but it became a general epidemic throughout a great portion of the United States, in fact, it was not confined alone to our hemisphere, but much of it prevailed in England, France, and many other portions of Europe. It is a disease *sui generis*, that is, it has many peculiarities belonging to itself, unlike any other disease. It has been said by some of our profession, that it is identical with scarlatina. I can see but little resemblance, letting alone the *identity*. The only thing in the disease that in the least assimilates scarlatina, is the inflammation of the tonsils and fauces, and this, to an acute observer, is easily diagnosed. Diphtheria is a sub-inflammatory asthenic disease, in which the nervous and circulatory systems are seriously involved. The small and rapid action of the pulse would indicate some serious lesion to the circulation, some general breaking down of the whole system. The general symptoms are indicative of some blood-poison, and such it seems to be. As is the case with other epidemics, so with this! We know not the cause. Why the *poison* should spend itself locally upon the uvula, tonsils, palate, and, sometimes, the glottis, epiglottis, and trachea, I leave to wiser men than I am to reason upon. That the nervous system participates largely in this disease, is known by the great debility and irritability, also by the condition the nervous system is left in, in the sequel; for it is not uncommon to find partial paralysis of the organs of deglutition, and we occasionally find partial or complete amaurosis. I have also, in a few instances in my practice, observed partial paraplegia. These sequelæ, under a continued use of quinine, the ferruginous preparations, or the more powerful tonic and tetanic *strychnia*, have usually yielded, though I have found it necessary to continue them for weeks, and sometimes several months.

As diphtheria is conceded by all to be an asthenic disease, and one of general debility, we would readily come to the conclusion that a tonic and stimulating course would be the *sine qua non* in its treatment, and such is my belief. When first visiting patients with diphtheria, I immediately place them upon

large doses of quinine every two hours—if the patient is a child six or seven years old, I would give it from 1½ to 2 grs. at each dose, and alternate with half a spoonful of the saturated solution of the chlorate of potash, requesting the patient to gargle the latter before swallowing each dose. If there is great debility, as evinced by rapid pulse, general pallor, sordes, etc., I would use brandy in conjunction with the quinine. In 24 hours' time, I have seen very marked effects from this treatment, and I attribute the improvement principally to the quinine. I believe it is worth everything else in the treatment of diphtheria. Of course I would not ignore the use of probangs and gargles, but would use the first very rarely indeed, and the latter prepared of some mild astringent or antiseptic. Tannic acid and capsicum, in the proportions of one drachm of each to one teacupful of water, makes a very good gargle; and if the patients cannot be taught to gargle, let them swallow it. In this way it will prove equally as effectual as if only used as a gargle, and not prove detrimental to the system.

The treatment recommended when diphtheria first made its appearance, of swabbing out the throat once, twice, or three times a-day with solution of argent. nitratum; muriated tinct. ferri; tinct. iodine; permanganate of potash, etc., etc., was, in my opinion a very bad one, and in many instances, I believe, resulted seriously. For if, by these means, we removed the pseudo-membranous formation, it only left a raw, granulating surface, ready, if the system was in the condition, to very soon produce another membrane probably worse than the one removed. Let me say to you, let the membrane alone until it becomes loose and nearly detached, and then, with a pair of forceps, we can easily remove it from the throat. The main point in the treatment of diphtheria is, to support the general system while the disease is preying upon it, and if we do our duty here, in most cases in a few days, we will have the happiness of visiting our patient in a convalescent state. Local external applications I hold to be of but little value, a flannel cloth moistened with ammonia or camphor liniment, or a piece of fat pork

sprinkled with pepper and salt, are probably as good as anything.

In the winter of 1863–4, cerebro-spinal meningitis made its appearance in our county. The symptoms are so well known to most, if not all of you, that it is not necessary for me to rehearse them. I had six cases of the disease, well-marked, and out of this number five of them died. Their ages varied from fifteen months old up to ten years. The one that recovered was a young man, aged about twenty-one. He had the most aggravated symptoms, including opisthotonos, trismus, coma, entire loss of sensibility, including loss of speech, etc., etc., and these symptoms remained for five or six days, and yet under treatment he recovered.

I was called to three other patients during the time the epidemic was prevailing, with severe pain in the head and cervical region, face flushed, head drawn back, full and rapid pulse, delirium, etc. I immediately bled each one of them, and gave tinct. ver. veridi in full doses; at the same time ordered an active cathartic. Under this treatment they all recovered. The six cases first spoken of were not treated in this active antiphlogistic way, for the reason that their symptoms would not admit of such activity. They were treated with laxatives—quinine, belladonna, mild opiates, carb. amo., etc., etc., with stimulating liniments, epispastics, etc., to the cervico-spinal region. Notwithstanding such authority as Dr. DAVIS has highly recommended—belladonna in the treatment of cerebro-spinal meningitis—I cannot see the rationality of it, and should feel very much indisposed again to try it. You may urge me for my treatment in this disease. I can frankly reply that I have none. I should treat my cases according to the symptoms. If active symptoms prevail, indicating congestion of the brain, with full pulse, flushed face, etc., I should certainly use the lancet and ver. viride; but if the type is asthenic, a tonic and stimulating treatment would look most plausible. I am firmly of the opinion, knowing the pathology of cerebro-spinal meningitis, that it will never be treated with much success. How can we successfully combat an inflammatory disease

of the brain and spinal marrow, and their membranes, especially when it is an epidemic, and supposed to originate from some unknown ærial cause? Epidemics of all kinds are usually more virulent than when the same disease occurs sporadically, and this remark applies especially to the one under consideration.

Typhoid fever, which has prevailed in Illinois for a great number of years, and has been so very fatal in many localities, has nearly disappeared from this section of country. How long this immunity may continue none of us can tell. I have seen but five well-marked cases of typhoid fever in the last two years. Two of them were patients of my friend, Dr. SCOTT. They came under my care for ten or twelve days, during his short absence in Minnesota. They were genuine cases, as marked by petechia, sudamina, tympanitus, hebetude, loss of memory, quick pulse, stupor, hæmorrhage, etc., etc.; in the sequal, abscess occurred in the perinial region. The other cases I saw in consultation with Dr. SMEAD, of Lafayette, in Stark County. One of them had hæmorrhage from the bowels, and immediately after convalesced. My treatment in typhoid fever is quite simple. If the case is mild, I simply give spts. mindereri and nitre; if the pulse is quick and full I would add two or three drops of ver. viride every two or three hours. When diarrhœa makes its appearance, I would use an emulsion of spts. turpentine, with tinct. opii; would continue this treatment through the disease if the diarrhœa remains. The patient should be well supported on milk-broth, wine, etc.; should the vital forces seem to be giving away, quinine, brandy, etc., are indicated. Typhoid fever is a self-limited disease, and the idea of breaking it up in a few days is untrue. Many empyrics, when this disease is epidemic, call nearly everything *typhoid*, and hence establish a reputation for treating this disease. I would particularly urge upon the young physician not to give much cathartic medicine. If a laxative is imperatively demanded, (which is rarely the case,) give about half a teaspoonful of oleum ricini, with from ten to twenty drops of oleum terebinth.; this quantity will rarely fail to operate sufficiently

thorough. Typhoid fever being an enteric disease, or dothinenteritus, we can easily conceive that a cathartic or laxative would move the bowels very readily, and such is the case. I never gives laxatives so long as the patient feels easy and comfortable, if the bowels should remain unopened for several days.

A species of stomatitis has prevailed as an epidemic since early in the spring, confined to no particular age. It produces ulceration about the roots of the teeth, on the palate, tongue, and, in fact, all over the mucous membrane of the mouth. In some cases the system seems to sympathize, producing a loss of tone, strength, and approaching anæmia. In such cases I have used quinine and the preparations of iron. Locally I have found more good derived from penciling the gums and ulcers on the cheeks with muriated tincture of iron, than from anything else, though I have used, with much benefit, sul. cupri and nitrate of silver. Some cases I treated with chlorate of potash, as a wash, and gave it at the same time as a *blood purifier*. It has not only acted as an epidemic, but has seemed to me to be contagious, spreading from one member of the family to another, by using the same drinking utensil, or from the parents kissing their children. Many cases have been stubborn, but all have yielded to the above treatment.

It remains for me to treat of two more classes of diseases which prevail in our county occasionally as epidemics, which I shall treat of very succinctly (as my essay has already grown too long). I allude to the *exanthemata* and diseases of the *stomach* and *bowels*.

In the winter of 1862–3, rubeola prevailed very generally, as an epidemic, not only in Henry County, but, I believe, very generally throughout the State. I think I must have treated more than a hundred patients, and, amongst that number, several in my own family. The type was remarkably mild, and, consequently, my treatment, to correspond, was equally simple. Where no complications existed, I simply prescribed cool drinks, *ad libitum*, equal temperature of the room, and the patients to remain indoors for a week or ten days after the exanthema disappeared. I rarely gave even a dose of sul. magnesia. When

the catarrhal symptoms were troublesome, I gave a simple expectorant, composed of com. syrup scillæ and tinct. opii camp. As a general thing, I discard the idea of prescribing laxatives in rubeola, for the tendency, in the sequel, is diarrhœa in nearly all cases. Under this kind of treatment, I had the satisfaction of consoling myself that all my patients recovered, but one, and he was a boy of 10 or 12 years old, who had been subject to epilepsy from early infancy. Congestion of the brain and, finally, arachnitis made its appearance, and death soon closed the scene.

We have occasional cases of variola every year, but our people are so well protected by vaccination that we need have no fears of its appearing as an epidemic. My treatment is very similar to what it is in rubeola, when uncomplicated, and, consequently, need not be rehearsed. I would especially enjoin upon all the profession the propriety of urging upon the people the benefit of vaccination and re-vaccination, until the system seems to be insusceptible to its effects. This course being rigidly pursued, it would seem that small-pox, in a few years, would be unknown. Would it not be well to urge upon our representatives the propriety of enacting a law compelling the vaccination of all persons?

Scarlatina has not prevailed as an epidemic in this section of country since the years 1857–8–9. It then appeared in a malignant form, and many died. I see sporadic cases of it every year, and it is at the present time prevailing to some extent, though in a *very* mild form. My treatment is remarkably simple, and, since I have been using it, very successful. I would urge upon the members of this Society to give it a fair trial. When called, I order a solution of carb. of ammo. in doses of from 3 grs. to 5 or 7, according to the age of the patient, every hour and a-half or two hours. This treatment I give, regardless of the rapidity of the pulse, or the redness of the surface, and I must say, that my success has been unequalled since I commenced this mode of treatment. I use gargles of capsicum and chloride of soda, with vinegar and water, or simply a saturated solution of chlorate of potash, discarding the use of the swab or probang.

Diarrhœas, with adults and children, make their annual summer and autumnal visits, but their treatment varies so much that time will not permit me to treat of them.

Dysentery prevailed as an epidemic in the summer and fall of 1864. In adults, I usually give at the commencement, a good-sized dose of sul. magnesia; if this fails to check the disease, I order a powder composed of sul. morphia, acetate plumbi, and minute doses of calomel given every three or four hours, alternating every day or two with a portion of oleum ricini or sul. magnesia. This treatment will rarely fail to cut the disease short. The treatment in children and infants is not so successful, and I would respectfully refer you to the books. I have seen infantile dysentery as fatal as epidemic cholera, according to the number of cases attacked. I know of no treatment that has been very successful in this fatal form of dysentery, and would respectfully urge this Society to give their views on this part of my report.

The dreaded epidemic, cholera, has not made its appearance in our village this season, and I have heard of but one case in the county, and that occurred at Galva. The gentleman came through Chicago during the night, arrived in Galva in the morning, and died the same night, or early the next morning.

Not having treated any cases of cholera during the present epidemic, I am poorly prepared to give my views; but, notwithstanding this, probably I am as well prepared as many of you, and, possibly, as well as many who have been treating a great number of cases. Who of you would apply *ice bags* to your patients in collapse with this disease? Who of you would give castor-oil to your patients when the bowels were already profusely running off and the stomach rejecting everything that is swallowed? Who of you would expect to cure your patients when in a state of collapse by the administration of spirits of turpentime and strychnia? And yet such is the treatment recommended by some of the most learned men in our profession. In brief, I have no time to dwell upon this *King of Terrors.* I would treat my patients, if found in the cholerine or diarrhœa stage, with small portions of calomel, acetate of lead,

and sul. morphine, given every two or three hours, until the diarrhœa was arrested; would order strict quietude and rest, in the recumbent position; very light diet, and small quantity of drinks of any kind—probably small quantities of iced-water, or even ice itself might be considered preferable. A treatment of this kind will usually succeed, but if we are so unfortunate as to lose this valuable time, or our patient sinks at once into vomiting, purging, cramps, and collapse, what is to be done? "Echo answers, what?" Now the critical time has come, and most of such cases die, regardless of the various treatments which have been proposed and used. Opium, or sul. morphia, so valuable in the first, or diarrhœa, stage, now is of much less value; if it is now given in large doses, or small ones frequently repeated, we produce comatose symptoms, loss of general vital force, a predisposition to arachnitis, and it also enhances the chances for a consecutive fever being set up, in case the patient rallies from collapse.

In this stage, I would give tinct. capsicum, tinct. camphor, ess. mentha, ss., and chloroform, combined with a very small quantity of tinct. opii; this preparation I would administer after every spell of vomiting, and if the vomiting ceased, I would give it as often as the cramps, diarrhœa, and pain seemed to indicate. I should be very careful not to produce the narcotic effects of this opiate. Stimulating injections might, with propriety, be given. Sinapisms and dry warmth should be used freely. I would give but little, if any water, preferring my patients should use ice in small pellicles to quench the raging thirst.

ARTICLE III.

CASE OF OVARIOTOMY.

By D. MASON, M.D., Prairie du Chien, Wis.

Was called to see Mrs. H., October 21st, 1865, and found her suffering from ovarian dropsy.

The history she gave of herself is briefly as follows:—She

is now 52 years of age; first noticed a tumor in her right side, 26 years ago, which, at times, seemed to enlarge, and then rapidly recede, and so continued until October, 1864, about 25 years from its first appearance, when a decided and steady growth commenced. In February, 1865, the growth increased more rapidly, and continued until October, when the distress from distension became almost insupportable. She had been attended during the summer by various eclectics, galvanists, mesmerists, and homœopaths, but without any benefit.

On the 21st of October, 1865, as stated above, I first saw her, inviting my friend, Dr. CONANT, to accompany me. The diagnosis was clearly established, and I tapped immediately, drawing off 14 lbs. of gray, turbid fluid, which reduced the tumor to about one-third its former size, very much to the relief of the patient. Her general health had been very much reduced by her suffering through the summer, but rapidly improved after the tapping. I then explained to her the certainty of its refilling, and proposed its removal; at the same time explaining to her the danger, and probabilities of success of the operation.

On the 10th of January, 1866, I was called to see her again, and found her much improved in health, and in good spirits. She expressed herself ready for, and anxious to have the operation done. I proposed the operation for the 18th. On the 17th, gave a full dose of castor oil, which thoroughly emptied the bowels. On the 18th, accompanied by Drs. ANDROS, LOWE, and HAZELTINE, of McGregor, Iowa, and Dr. CONANT, of Prairie du Chien, I proceeded to operate. Having the temperature of the room at 70°, gave the patient a mixture of equal parts of chloroform and sulphuric ether to complete anæsthesia; made the incision on the linea alba, from about an inch above the pubis, upwards about 12 inches in length. The tumor presented itself covered by the omentum and with pretty firm adhesions, the most of which were broken up with the finger, but a few points, more firm, were dissected away. In breaking up these adhesions, a portion of the omentum was slightly torn, and was cut away. Two small arteries were divided in this

procedure and threatened to be a little troublesome, but the hemorrhage was arrested by the application of a little persulphate of iron.

Following the tumor down to its pedicle, it was found to be quite small, about four lines in diameter, two inches in length, and round. It was tied by one strong ligature, the pedicle severed and the tumor lifted out, and was found to weigh seven pounds. During this procedure, the exposed bowels were covered by napkins dipped in warm water; they were now carefully sponged, all little particles of clots removed, and returned to their natural position. The wound was now closed by eight silver wire sutures, the ligature of the pedicle being brought out of the lower angle of the wound; adhesive straps were placed between the sutures; a lint compress; and a broad bandage pinned snugly around the whole. At this time, the effects of the chloroform had pretty well passed off; the pulse 98. Sulph. morph., ½ gr., was given immediately, and repeated in an hour, after which, ¼ gr. was given every two hours until the following day.

19th. Has had some vomiting; pulse 100. Sulph. morph. ¼ gr. every four hours.

20th. Pulse 102; respiration 28; vomiting continues at intervals; not much pain. Suspend the morph.

21st. Restless; pulse 104; considerable tympanitis. Gave enema of tepid water; bowels moved, which greatly relieved the tympanitis.

22d. Has passed a comfortable night; pulse 104; pain slight. Dressed the wound, which is healing very kindly.

23d. Much tympanitis, though not much pain; pulse 110; tepid water enema relieves the tympanitis.

24th. Has passed a comfortable night; pulse 108.

25th. Pulse 100; pain slight. ℞. Sp. vini Gallici ℥ij. every two hours.

26th. Considerable pain from distension of the bowels; enema moves the bowels and relieves all the symptoms.

28th. Has been very comfortable since the last record; remove the sutures; wound pretty firmly united.

30th. Pulse 94; give Rhine wine, ℥j. every two hours, in place of brandy, and beef-tea *ad libitum.* I would here state, that, up to this date, the diet had been toast-water, farina gruel, with small particles of ice to allay thirst.

Feb. 7th. Has been very comfortable since last record; pulse 80; ligature gave away upon a little traction to-day.

12th. Wound entirely healed; appetite good.

20th. Patient returned to her home, 10 miles in the country.

26th. Visited patient at her home. I found her moving about the house, and she expressed herself as feeling quite well, though a little weak.

I would here tender my great obligations to Dr. ANDROS, for his assistance in conducting the after treatment.

ARTICLE IV.

WOUND OF THE INTESTINE—RECOVERY.

REPORTED BY DRS. MASON & WHITNEY, Prairie du Chien, Wis.

Nov. 13th, 1866. John Fisher, a native of Sweden, light complexion, tall, spare, and of robust constitution, *æt.* 32, was stabbed, in an affray, on the evening of the above day. The instrument by which the injury was inflicted was probably a large dirk-knife. The knife entered the abdominal cavity about an inch below the umbilicus, and nearly over the median line, producing a diagonal wound nearly two inches in length. The corresponding wound in the *transverse colon* was also diagonal, something over an inch in length, and was found to have divided a large branch of the mesenteric artery. When first examined, the larger portion of the intestines had escaped, including the wounded colon, and lay congested and cold upon the abdomen. There had been a good deal of hemorrhage from both ends of the severed artery, which was still bleeding. The pulse was feeble; surface cold and exsanguined; and the patient quite insensible.

A ligature was immediately placed on both ends of the divided artery and closely cut, the contents of the colon in the vicinity of the wound evacuated, the wound cleansed and closed accurately by the Glover's suture, care being taken to bring the serous surfaces in contact. The entire mass of intestines were now carefully examined, when, no other injury being found, they were cleansed with warm water and returned, the small intestines first, and, lastly, the wounded colon. The long ends of the intestinal suture were now drawn up, bringing with them the entire gut, so that the intestinal wound should lie directly under that of the abdomen, to which it was closely applied and secured by fastening the sutures outside. The external wound was now closed by two points of suture and a few straps of adhesive plaster, a pledget of dry lint and compress applied, and all secured by a broad bandage. The patient was ordered to have a little stimulus and $\frac{1}{4}$ grain of morphine every third hour.

Nov. 14th. Had passed a comfortable night; is well under the influence of morphia; pulse 108, quick; tongue a little red and dry; no tympanites, and very little pain. Ordered to continue the morphia, and, for nourishment, oatmeal gruel; for drink, ice-cold toast-water.

Nov. 15th. Pulse 120; tongue red; some tympanitis; lies quiet; narcotism pretty well established. Continue treatment.

Nov. 16th. Pulse 124; otherwise, same as yesterday; suffering no pain. Continue treatment.

Nov. 17th. Same as yesterday. Continue treatment.

Nov. 18th. Pulse 132, feeble; tongue very red and dry; tympanitis increased, and some pain. Continue treatment, and for nourishment, beef-tea.

Nov. 19th. Removed external sutures; found wound united, except at lower angle, where intestinal sutures were brought out; pulse 138; tympanitis about as yesterday. To increase the doses morphia to $\frac{1}{2}$ gr. every four hours, and 1 oz. whiskey alternately.

Nov. 20. Pulse 132; tympanitis less; no pain. Continue treatment, and dress wound. Bowels moved a little to-day.

Nov. 21st. Pneumonia developed in the right lung; cough troublesome; some dyspnœa. Continue morphia, and substitute Mindererus' spirit for the whiskey.

Nov. 22d. Patient improved; pulse 124; surface perspiring; considerable rusty expectoration. Continue treatment.

Nov. 23d, 24th, 25th, and 26th. Improving; patient comfortable; intestinal suture coming away. Continue treatment.

Nov. 28th. Intestinal suture brought away; bowels moved freely. From this date, the patient recovered gradually, having a moderate diarrhœa only, which was restrained by tr. opii camph.

Dec. 10th. External wound about healed, and patient walking about.

It will be remarked that the morphia, pushed to moderate narcotism, was steadily persevered in throughout the treatment. Of course it was withdrawn as soon as the tympanitis began to subside and the danger from inflammation had passed. During the process of repair, a red and raised ring was noticed around the wound where, probably, the intestine was glued to the walls of the abdomen by plastic lymph.

ARTICLE V.

ESSAY ON CHOLERA.

By N. WRIGHT, M.D., Chatham, Ill.

Read before the Illinois State Medical Society, June 6, 1866.

The almost certain reäppearance of that formidable disease, Asiatic Cholera, amongst us the ensuing year, should claim the especial attention of medical men, whose duty it is to gather around them all the information that is possible to be obtained concerning the various theories of its causes, pathology, and treatment.

It would seem presumptuous in me to attempt to enlighten you, gentlemen, upon this already thread-bare theme; still the

vast importance of the subject, and the intense interest that is manifested by the public mind, demand that the little we may know, or the theories we may entertain, should become the common property of the profession, as well as the community at large, whose protectors and guardians, in matters of health, we are. They look to us in "this the hour of their distress," and we should be prepared by our science and skill to calm the public fear, and thus remove one of the great, if not the greatest, predisposing causes of the frightful epidemic. We should investigate the subject in all its various phases, and when we do meet the disease, meet it calmly, with a mind well prepared by sound pathology and therapeutics, early to battle with the monster and gain the victory, thus showing to the community that the confidence reposed in us, as conservators of the public weal, is not misplaced. Let us be no cowards, but, armed with science and experience, go forth and conquer even the fell destroyer cholera.

I would define cholera, as a disease that is characterized by profound disorder of every vital function—of innervation, circulation, respiration, and secretion. It is attended with more or less prostration and lassitude; with a suspension of all the secretions; a feeling of cold; frightfully sensible to the touch; the breath and tongue of almost icy feel; a voice so peculiar as to entitle it to the *sobriquet* of "vox cholerica;" with a leaden color of the skin and mucous membranes, wherever perceptible; shrunken features and sodden extremities; cramps of the abdomen and extremities; a pulse quite small and feeble, often imperceptible; respiration accompanied with frequent sighing, and quite difficult—all of these attended with a profuse flux, both *per orem et anum*, of an enormous quantity of sero-albuminous fluid, deficient or entirely wanting in the normal secretions, heavily loaded with mucous epithelium, which has been mistaken for an altered secretion—all of these generally ending in death by asphyxia.

The appearances presented upon dissection are all much the same, with perhaps more uniformity than in most other diseases. The only discrepancy can be easily accounted for, could we but

know the particular stage of the disease in which the subject died. That discrepancy is found in the condition of the lungs, sometimes pale and exsanguious, and at others engorged and turgid with blood. The first, or anæmic condition, I have found when death took place in the early stage of collapse; and the hyperæmic condition, when the collapse has passed away and reäction, either in whole or part, has been established. The chief constant and conspicuous pathological phenomenon that is apparent in every case, is the changed condition of the blood, deprived of its serum, which has passed away in the enormous discharges and left a dark, coagulated mass accumulated in the right cavities of the heart, the vena cava, the portal and emulgent veins. The arteries are, for the most part empty, as, also, is the left side of the heart. The blood thus found, coagulates entirely, without leaving a single drop of serum; heavily loaded with carbon and coloring matter; deficient in the saline ingredients; without a particle of the free alkalies contained in healthy blood. Urea sometimes exists in the blood, where the secretion of urine has not been partially reëstablished previous to death. The mucous surfaces are covered with a substance almost precisely like the rice-water discharges vomited and purged during life. There is mucous epithelium still adherent to the surfaces of the membrane. The liver is filled to overflowing with dark blood, arising, no doubt, from both the obstruction of the central organ of circulation and the loss of fluidity of the blood itself. The bladder is invariably found empty and closed firmly upon itself, affording a diagnostic mark between cholera-morbus and cholera. The spleen is found often enormously distended, and, in fact, not a single abdominal or thoracic organ can be found unmarked with vascular rupture or turgescence of black blood.

Let us, for a few moments, contemplate the changes we find in the various organs from their normal condition, together with the offices they perform in the living machine, and I think we must all come to the conviction that the essence of the disease consists in morbid action of the secreting organs, produced by some poison, diffused throughout the blood, having a special

direction and influence upon the nerves of organic life, or, in other words, upon the great sympathetic or ganglionic system of nerves whose duty it is to preside over the three great operations of life, to wit:—circulation, respiration, and secretion.

In the cold stage of our ordinary intermittent, in the rigor of congestive fever, and in the symptoms of some remittents, we have a few of the symptoms of this disease, though they are but in miniature and of the milder form. We also behold some of its phenomena in our ordinary endemic cholera-infantum—the same persistent nausea; the same albuminous discharge. And, still again, we meet with a closer resemblance in our intermittents, when they assume the malignant, or, as it is often called, the congestive form.

I have seen, and, doubtless, most of you have seen, cases of malignant chills which were almost identical with cholera—the same coldness of the surface and sodden appearance of the extremities; the same shrunken, pinched countenance; even the "vox cholerica," with the small and often imperceptible pulse; attended too, by vomiting, purging, and cramps. It was the close resemblance of one of these cases, years ago, when intermittents were of a more malignant character than now, that led me to investigate the relations that exist between cholera and miasmatic diseases; not that they are precisely alike, but there is a striking analogy between them in some of their symptoms, particularly the organs most affected. The locality too, which produces cholera in its most frightful forms, is identically the same as of miasmatic diseases. India, on the banks of the Ganges, the cradle of the scourge; the delta of the Nile; the valleys of the Mississippi and the Rio Grande; and, in short, wherever you find alluvial deposits and malarious regions, there you will find favorable localities for its propagation and foci from which it disseminates itself.

I would not wish to be understood as classing cholera with diseases of miasmatic origin, simply because they are rife in the same regions that cholera has ravaged and still continues to devastate; nor yet from the strong resemblance that cholera has in some of its earlier symptoms to this class of diseases;

but I do think that there is a strong family resemblance between them, and that all the phenomena of the disease clearly indicate that both are of that class of disease which first shows itself in its effects by the derangement of the nerves of organic life.

To elucidate, in part, the pathology of the disease, I would call your attention to the fact, that the onus of the morbid impressions is first felt by the chylopoietic viscera, which are supplied with nerves from this system. When we consider the physiological purpose of the ganglionic system of nerves, and that all vital actions are produced through their influence; that they are distributed to the heart, lungs, liver, spleen, and kidneys, as well as to all the viscera contained in the thoracic and splanchnic cavities, and that these organs feel the touch of the disease almost simultaneously, we are compelled to admit that it is upon these nerves that the disease is hurled.

The doctrine that malarious diseases were derangements of the ganglionic system of nerves, is no new theory; but, until quite recently, the fact, as such I may now call it, has not been demonstrated. Prof. J. H. SALISBURY, in his experiments, as related in the *American Journal of Medical Sciences*, shows that the essence of malarial poisoning consists of minute cells of an algid type, closely resembling palmella that are produced under favorable circumstances of heat and moisture, inhaled into the lungs, thence through the blood; and these affect the vital functions of the nerves of organic life; change the normal condition of the secreting organs, and thus produce malarial poisoning. Such may be, and quite likely is, the manner of the working of cholera, at least there is a striking resemblance between the operations of the two classes of poisons—affecting the same organs in much the same manner, through the same means, though with a different degree of intensity.

From a careful survey of the various epidemics, as narrated by careful observers, and from no inconsiderable experience in the disease, I am fully satisfied that it can only be communicated through and by means of matter vomited or purged that may have an immediate effect upon systems prepared to receive

them; or they may act remotely upon the putrid products of decay, made up of decomposing animal and vegetable matter, in our large cities; hence, the intensity and diffusion of cholera is in an inverse ratio to the sanitary condition of the place. Atmospheric causes have, doubtless, much to do, as remote agents, in spreading the disease, still they are unable to produce it without the aid of local inoculation of existing filth and decomposing matter by cholera poison from some one having the disease. It travels no faster than it is carried, and stringent quarantine and strict sanitary measures will do much to avert, if not to exclude, it from any place.

If the foregoing views of the origin and pathology of this disease are correct, and the more I read and reason upon the subject, the more I am convinced they are, the plan of treatment must be simple and plain, but the means by which to accomplish it *hoc opus, hic labor est.*

The obvious pathological changes, as we have previously stated, are in the blood, and an impaired or subverted innervation of the ganglionic system of nerves presiding over the functions of organic life, that are distributed to the heart, lungs, and viscera contained in the abdomen.

With these changes constantly in view, our efforts will be, first, to sustain the vital powers; then, to arouse and change the impaired action or non-acsion of the splanchnic nerves; then to arouse and restore the suspended secretions and compel the various organs *revocare gradum.*

All remedies may be, and indeed often are, abused or misused; and stimulants, in this our day, seem to be in some danger of abuse, as it is the fashion to stimulate for everything. I would wish to use them so as to avoid Scylla on one side, and Charybdis on the other. The scripture tells us to "give strong drink to him that is ready to perish, and wine to him that is of feeble heart," and I know of no disease that "fills the bill" of the wise man so completely full as the one now under consideration. Active and diffusible stimulants must be freely used to overcome the extreme prostration and bring about the so much desired reäction. We must restore the lost equilibrium of the

circulation and innervation, arouse the capillary circulation of the skin and mucous membranes, as well as the organs contained in the abdomen; reëstablish the biliary and urinary secretions, and even when these are accomplished, our work is hardly begun. The vast quantities of effete matters that are retained in the blood, the result of suspended secretions, must be eliminated before we can feel assured that our patient *superasque evadere ad auras.* When we look for a moment at the enormous amount of secretion in a healthy adult, the saliva, the gastric juice, the pancreatic fluid, the bile, the urine, the cutaneous exhalations, and carbonic acid thrown off by the lungs and think that these are all retained in the system, why do we wonder that death takes place so soon as it often does in cholera? Why not rather wonder that the patient survives so long?

One great point in the pathology of cholera, which has attracted more attention than all others, is the anæmic condition of the left side of the heart and arteries, and the excessive hyperæmia of the right side of the heart and veins. Some late observers and writers have attributed this to spasm, or rather, as they have called it, *tetanic* spasm of the arteries and capillaries, particularly of the branches of the pulmonic arteries, that has closed these vessels and thus prevents the transmission of the blood through the lungs, and, consequently, no blood enters the lungs to be there oxygenated and passed to the left side of the heart, and again to pass its rounds in the system. At first view, there would seem to be some plausibility in this hypothesis. The success that blood-letting and nauseants, and even emetics, and, more recently, chloroform, have met with by their known powers of relaxing spasm, and thus (as is claimed by the supporters of this tetanic spasm theory) permitting the transmission of the blood through these closed capillaries, I admit looks very reasonable, if the obstacle to the circulation be of the nature of tetanic spasm. But if, on the other hand, a want or absence of tone in the capillary vessels and branches of the pulmonic arteries, arising from deficient innervation of the nerves that govern the circulation be the cause that obstructs the blood and prevents its entrance into the lungs, there to

receive the vivifying element that fits it for sustaining vital actions, if this be the cause, as I believe, it is evident that these means can afford but temporary relief and, in the end, but hasten the fatal result. The reason that seems to me perfectly satisfactory for the stoppage of the blood in the right side of the heart and in the pulmonary artery, is a want of nervous power that should be imparted by the sympathetic, which system is overpowered or stricken down by the poison of the disease. With this view of the causes that produce the unequal circulation, our attention should be directed to arousing the energies of the nervous system, particularly the ganglionic nerves.

The best means to accomplish this with, in my hands, in many cases of malignant chills, has been large and oft-repeated dry cups applied to the epigastric region, for beneath this region lies the great epigastric or solar plexus of the sympathetic system, from which plexus radiates the nerves that supply nearly all the viscera in the abdomen. I need not enumerate the various ganglia and their distribution, but if there is one point in the human body that is, or can be called, the centre of organic life, the solar plexus is that point. The shock imparted to the nervous system through the nerves radiating from this plexus by a large cup applied and repeated over this region, has saved patients of mine, suffering with malignant intermittents that I do not believe could have been saved by any other means in my power; the nervous system was aroused by this means, and stimulants and tonics completed the work. Strong rubefacients should be assiduously applied along the entire length of the spine while cramps or spasms continue, and friction with the hands and flour of mustard or capsicum wherever they appear. External heat, in the form of hot baths, whenever they can be had, with mustard freely infused, must be used for the purpose of keeping up the temperature of the body and arousing the capillary circulation of the skin.

An excellent, and in the country, in the absence of a bathing tub, a very convenient method of administering external heat is by means of ears of maize boiled for some time in water, and

placed, while hot, around the patient in bed, or what is called a corn sweat; mustard sinapisms to the wrists and inside of the thighs and ankles; hot pediluvia, increased with red pepper or capsicum; and a flannel dipped out of hot water and sprinkled quickly with spts. terebinth., applied hot to the abdomen; and injections of warm water per anum, as warm as you dare to use, to the amount of two or three pints, together with warm bed-clothing and the recumbent position. All of these should be persevered in as adjuvants to the medical treatment.

I am well aware that treating symptoms is not a very sound or rational practice, but we have high authority for combating or avoiding the tendency to death, and we are justified in our efforts to alleviate the pain our patient is suffering while we are awaiting the action of medicines that may restore him to health. Vomiting is one of the symptoms that distress and harass the patient, and at the same time prevents the retention of medicines we may have administered to overcome the disease. Cold or ice-water is very grateful to the sufferer. and often it seems to check the vomiting. Ice-cold sparkling wines, as catawba or champaign, often are the best drinks that can be given our patients. Creosote, in doses of three or four drops in a little cinnamon water, with about half an ounce of gum Arabic emulsion, will sometimes check this distressing symptom. Mint juleps and the common effervescing soda-water, mixed with ice, is an excellent means for allaying the distressing vomiting, and at the same time it alleviates the tormenting thirst.

Opium, we all know, in small doses, frequently administered, acts as a stimulant, and, at the same time, will allay the excessive irritability and pain that accompanies the early stages of the disease. It, however, is a remedy that must be used with great caution and carefully watched, that narcotism is not produced, and it should be altogether withdrawn when the consecutive fever stage springs up.

Ipecachuana, in small doses, will be found of great assistance, by its effects upon the skin, and combined with camphor, which will do much to sustain the enfeebled nerves, and at the same will do all that we can do with medicine to relieve the frequent spasm.

Calomel must not be forgotten, to arouse the dormant secretions, especially of the biliary organs; but the enormous doses that have been given in this disease are but a wanton waste of a useful medicine. The quantities of each will vary with the peculiar characteristics of the epidemic and with different cases of the same epidemic, as well as the intervals of time in which they should be administered.

℞.	Hyd. Sub Murias, ------	grs.xvj.	℈ij.
	G. Camph. pulv., ------	grs.xviij.	℥ss.
	Pulv. Ipecach.,----------	grs.xij.	grs.xviij.
	Pulv. Opii, ----------	grs.xij.	grs.xiv.

M. Divide into 24 pills.

From the strong resemblance of many things in cholera to miasmatic diseases, and the well-established efficacy of quinine in the latter, it would seem well worthy a place among our remedies in this disease, and many have used it with much satisfaction. Oxygen gas, could it be easily obtained, would be a powerful assistant before the collapse stage of the disease.

This is but an imperfect outline of the treatment I would propose for the early stage of the disease, and often the judicious treatment of this stage will obviate the necessity of treating the more advanced stages and severer forms.

But should the disease progress in spite of all our efforts, and bad cases generally will, and extreme collapse ensue, shall we give up in despair? Cold effusions, in the form of shower baths, applied so as to produce as great a nervous shock as possible, have been known to save the patient when in *articulo mortis*. Opiates can rarely be used now, and all our efforts must be used in every possible way to reänimate the almost dead body—diligent friction, after the cold shower bath; hot blankets and strong irritants more assiduously applied to the spine and abdomen; and the stimulants, both alcoholic and diffusible, should now be carried almost to the heroic—these should be tried, but, I confess, with little hope of success in this stage of the disease.

The consecutive fever that follows the recovery from cholera is often of as much importance as the disease itself. Local inflammation, arising from the suspended secretions in the vari-

ous organs, will demand our attention, with appropriate means for their removal, which will best be understood by the appearance of the case itself. Local abstraction of blood, with counter-irritants, and even blisters, together with appropriate remedies for restoring the secretions that have been suspended, these, with a light, nutritious diet, will generally restore our patients to health again.

Resume.—1. Cholera very closely resembles diseases of miasmatic origin, as well in the choice of its location as in the identity and manner of the organs affected, and in the success that the same treatment has with both diseases.

2. That both miasmatic diseases and cholera are essentially manifested in derangement of all the secretions dependent upon deficient circulation of the blood, caused by want of innervation of the nerves of organic life belonging to the ganglionic system that are stricken down by the poison of the disease.

3. That the first and greatest object in the treatment of this disease, is to arouse the energy of these nerves by some sudden shock, so that they will supply the proper stimulus to the heart and arteries sufficient to keep up the circulation which may be much assisted by keeping the temperature of the body up to, or above, the normal condition.

4. That the proper and judicious use of stimulants, nervous, alcoholic, and diffusible, with other means mentioned above, to arouse the dormant secretions after the nervous system has been aroused, afford us much encouragement in the treatment of this disease.

ARTICLE VI.

CASE OF DEATH FROM CHLOROFORM.

By. C. R. PARKE, M.D., Bloomington, Ill.

Read to the Illinois State Medical Society, June, 1866.

MR. PRESIDENT:—Permit me to report the following case of death from the inhalation of chloroform:—

On Saturday, June 2d, I was called to administer chloroform

to Miss ——, age about 20 years, apparently in good health. Object, the extraction of teeth.

On the previous Wednesday, chloroform had been administered by a dentist, and six molar teeth extracted, without any deleterious effects.

On Saturday, she seated herself in a regular dental chair, was quite cheerful, and anxious to get under the influence of chloroform. I placed about ½ of a drachm of chloroform on a sponge and applied it to the nose in the usual way, covered by a towel. This quantity not being sufficient to produce the desired result, an additional ½ of a drachm was poured upon the sponge, which, amount, in a few minutes, sufficiently affected her so as to enable the dentist to extract three molar teeth, with but little pain. She sat up and spit out the blood that accumulated in the mouth, after which she gave me to understand that I must give her more chloroform before she could submit to the further extraction of any more teeth. The remainder of the *drachm* of chloroform was then poured upon the sponge and given as before. In a few minutes, she was considered sufficiently under its influence, to have the remaining teeth (three) extracted.

Just before the doctor succeeded in extracting the last tooth, I noticed a deathly pallor of the countenance; complete cessation of respiration; pulse scarcely perceptible for a minute, when it ceased entirely. There was also considerable capillary congestion about the skin of the upper portion of the chest, also dilatation of the pupils. Prior to the appearance of the pallor of the face, there was not an unfavorable symptom present.

Immediately upon the presentation of the above symptoms, I drew the tongue as far out of the mouth as was necessary to allow the air to enter freely, and, with the assistance of Dr. H. Luce, kept up artificial respiration. Applied aqua ammonia to the nostrils and introduced a small quantity of brandy into the mouth. A catheter was also introduced down into the pharynx, through which we blew, thinking the air might the more readily enter the lungs; at the same time we applied the electro-galvanic battery to the spine and muscles of respiration,

all of which means were used diligently for three-quarters of an hour without avail, she only making three attempts at inspiration during the commencement of our efforts at artificial respiration. The pulse acted as it commonly does, during the administration of chloroform, first being excited, then depressed, nothing indicating cardiac trouble of any kind. There was none of that lividity of countenance witnessed in asphyxia. The whole transaction, up to the fatal minute, was not over twenty-five minutes; and the amount of chloroform used, only one drachm.

This is the first fatal case I ever witnessed from the inhalation of chloroform, and I suppose I have administered it, and seen it administered, in this country and in Europe, nearly a thousand times.

Any suggestions thrown out by this Society, as to the particular action of the anæsthetic, and the cause of death in this case, will be thankfully received. My opinion is, it was paralysis of the heart, with congestion of lungs.

ARTICLE VII.

A CASE OF ELEPHANTIASIS—SUCCESSFUL RECOVERY.

By R. DEXTER, M.D., Chicago.

Carrie G., *æt.* 20, an inmate of the Erring Women's Refuge, gives the following history of herself and the outgrowth:—

Is a native of Rochester, N.Y.; has resided in the southern part of Illinois several years. A little more than a year ago, she observed that the external labia were somewhat increased in size, and presented an unusually rough appearance. The rapid growth of the parts induced her to seek medical advice. The external application of iodine was prescribed, together with the exhibition of internal remedies, but without any beneficial results.

The advice of another physician was sought, but change of treatment brought no relief.

Our attention was called to the case about two months since. Found the external labia enormously hypertrophied, presenting every appearance and symptom of elephantiasis. Each lip was about five inches long, and one and a-half inches through. It seemed that but one alternative remained, *viz.:*—excision. The counsel of a medical gentleman was obtained, who fully concurred in the opinions above given.

Accordingly, on the 21st of December last, we removed the entire mass. Hemorrhage was controlled during the operation by tying the arteries as they were divided. There were four on each side, but were not enlarged. Recovery will be perfect, with but trifling deformity.

Proceedings of Societies.

CHICAGO MEDICAL SOCIETY.

At the meeting of this Society on the evening of the 21st of December, 1866, Dr. Ira Hatch related a fatal case of cerebro-spinal meningitis, or spotted fever, that had occurred in his practice recently. During the discussion that followed the relation of the case, Dr. Orrin Smith referred to the efficacy of sulphuric acid in the treatment of erysipelas and small-pox, claiming that when given in efficient doses, its effects were more promptly curative than the tincture of chloride of iron.

At the same meeting of the Society, Dr. Quales presented the uterus of a female recently dead from puerperal or child-bed fever, in the County Hospital. It showed the usual appearances of severe inflammation.

At the meeting on the evening of Dec. 28th, 1866, the question for discussion was as follows:—"In what class of cases, and when, are surgical operations justifiable, in the treatment of cancerous diseases?"

Dr. Bogue, in opening the discussion, remarked that, as a general rule, the results of operative procedures for the removal

of cancerous tumors were unsatisfactory. Epithelial cancers and scirrhus in its early stage, are the varieties most likely to be permanently benefited by extirpation. As a general or average result, thinks it doubtful whether life is prolonged by surgical interference. Regards operations sometimes justifiable for the purpose of giving the patient temporary relief from the great pain and offensiveness of the encephaloid cancerous growths in their advanced stage. When the disease affects one of the extremities, he regards amputation as preferable to the simple extirpation of the tumor.

Dr. G. Paoli said he thought the profession divided in opinion, as to the value of surgical operations in cancerous diseases. Statistics appear to show that a large majority of cancerous patients die in from 12 to 18 months after surgical operations for their relief. He claimed that many cases of the epithelial variety of cancer, and some cases of scirrhus, were benefited by operations for their removal. But if the latter variety existed in both breasts, or involved the neighboring glands, or the patient had attained an age beyond 55 or 60 years, no operative procedures should be undertaken.

Dr. Nelson related an interesting case of supposed cancerous tumor in the axilla of a soldier, which was extirpated in Boston, in 1862 or 1863, and up to this time the man remains well.

Dr. E. L. Holmes remarked that the case related by Dr. Nelson, and others like it, certainly justified operations to some extent. He also thought an operation sometimes justifiable, simply to obtain temporary relief from severe suffering and annoyance. He thought, however, that the diagnosis of cancerous tumors was in some cases extremely difficult; the results of microscopic examinations not affording a sufficient test.

The discussion was further continued by Drs. N. S. Davis and H. M. Lyman, both of whom advocated the propriety and importance of paying more attention to the constitutional treatment of cancerous diseases.

ELGIN MILK CONDENSING COMPANY.

Dr. Hamill reported the observations made by himself and Dr. H. A. Johnson, during a visit to the "Elgin Milk Condens-

ing Company," which were of a very satisfactory character. The whole process, from the delivery of the milk by the dairymen, until it was prepared in its condensed form to be delivered to consumers, was exhibited to them. The integrity of the parties, the scrupulous care with which the milk is received, the cleanliness and sweetness of every vessel through which it passes, are guarantees to the public for its good qualities. It is recommended to the profession and the community for the following reasons:—

1st. It is procured from healthy cows, that are not fed with slops from the distilleries, and are not kept, during any part of the year, in dark, close, and dirty barns.

2d. The process in no way deteriorates the quality of the milk, and its bulk is diminished, making its transportation easy.

3d. It is of uniform strength, requiring three parts of pure water to one part of condensed milk to bring it to the standard of good fresh milk. There is no drug or chemical used or mixed with it.

And, lastly, it can be kept for a much longer time, at any season of the year, from becoming sour, if proper care is taken.

It is the pecuniary interest of the company to use good milk for condensing, and none other; this furnishes an additional guard over the purity of the article.

In consideration of these facts, it is especially adapted to the nourishment of infants who are deprived of a mother's care, or of good milk; if it supplies no other want, it will confer an unlimited blessing on this dependent class of human beings.

The following letter from Prof. Johnson to Dr. H., will be read with interest by all, and needs no comment:—

Dr. Hamill—*Dear Sir:*—I received from Mr. Hinckley a specimen of the milk, condensed at Elgin in our presence, and have subjected it to an examination, for the purpose of ascertaining what changes have taken place in its constitution. I added to one part of the "condensed milk" three parts of water, mixing well. The sp. grav. was then 1030, water being 1000. The casein did not differ, so far as I could judge, from that of good uncondensed milk. The amount of cream was

within the range of good new milk. The corpuscles, as seen under the microscope, to a *very limited* extent, were broken, and in size, were somewhat more variable than those of good uncondensed milk, the effect, I presume, of the mechanical agitation during the process of condensation. The taste of the milk, after condensation and dilution, as compared with specimens of the same milk before condensation, was somewhat richer, giving the impression of more cream, due, I think, to the rupture, as previously stated, of the envelopes of some of the corpuscles. This, while it gives a richer taste, in no way impairs the quality of the milk. I used in my examination, as a standard of comparison, the new milk from my own cow, a healthy animal, yielding, as we think, milk of an excellent quality. This process in no way injures the quality of the milk, while it diminishes the bulk for transportation; is clean; is not likely to be adulterated, and may be kept without change for a much greater length of time. I take pleasure in saying that, in my judgment, the public may rely upon it implicitly, and I trust that the gentlemen interested may find sufficient encouragement to induce them to continue its preparation.

In conclusion, I beg leave to suggest, that, as in all milk adulterated, whether with water alone, or with water and an admixture of other ingredients, the cream is invariably diminished in relation to its bulk or quality, that the galactometer may be advantageously resorted to as a means of examination in cases of suspected falsification. This instrument consists of two glass tubes, of considerable size, connected by a smaller tube. This latter has a graduated scale attached. The instrument is filled with milk up to the small tube, a portion of acetic acid is added; the two well shaken together for a minute or two, when the butter, liberated by the acid, rises to the surface and fills the smaller tube. If gently warmed it will become limpid, and the amount will be indicated by the graduation of the smaller tube. If it be desirable to determine the proportion of cream to the whole amount of milk, the capacity of the instrument and the value of the divisions on the scale should be determined. If, for instance, the capacity of the larger tube

be five times that of the smaller, and the tube be divided into ten equal parts, it would be easy to determine, within a very small fraction, the relative proportions of cream in the milk with which the instrument is charged.

This process does not give, it is true, a scientific analysis of milk, but indicating, as it does, the amount of cream, its results are sufficient for all practical purposes.

Very truly, yours,

H. A. JOHNSON.

611 Wabash Avenue, December 28th, 1866.

After hearing the report of Dr. Hamill, the following resolution was offered by Dr. N. S. DAVIS, and unanimously adopted:

Resolved, That the great importance of having milk pure, uniform in quality, and capable of remaining sweet longer than that ordinarily distributed directly from the dairy, makes the condensed milk furnished by the Elgin Milk Condensing Company an article of great value to the community, and one which we freely recommend for general use, and especially for use in feeding children.

MILITARY TRACT ASSOCIATION.

The Association met in semi-annual session, at Galesburg, on Tuesday, 11th day of December, 1866, at the hall of the Christian Association, A. H. Thompson, M.D., President, in the chair.

The proceedings of the previous meeting were read and adopted, when the following physicians were presented for membership, and were elected:—Drs. Spalding, Hamilton, Phillips, Woodward, Burlingham, and H. M. Hurd, of Galesburg; Drs. Ewing, Webster, and Crawford, of Monmouth.

It was voted that Dr. McClanahan, of Mercer County, be elected an honorary member, with all the privileges of the Association.

Reading of essays being next in order, Dr. Crossley, of Princeton, read an article on Army Itch, or "Illinois Scratches," which elicited quite an animated discussion.

Dr. Woodward gave a history of the disease, as it prevailed among the soldiers during the late war; and also exhibited some animalculæ recently taken from a patient under his care. He considered the insect essentially different from the true acarus scabiei, but believed the disease amenable to the same treatment. The treatment used by him in the army was, iodide of arsenic internally, and ungt. hyd. oxid. nit. externally.

Dr. Nance believed the disease to be caused by animalculæ, and that the ungt. hyd. fortis, properly applied, was a certain cure.

Dr. Spalding recognized the disease as being identical with scabies; curable with the migt. sulphuris.

Dr. Holton believed the disease to be caused by animalculæ, but differing in the form of eruption produced by the acarus scabiei not infesting the spaces between the fingers and about the joints; both amenable to mercurial treatment; but the difficulty of effecting a cure in the army, was the inability to observe cleanliness, also the frequently depressed physical vigor of the patient.

Moved by Dr. Crossley, and carried, That the disease under consideration is animalcular in origin; and that mercury or sulphur is the treatment.

Dr. Nance, of Kewanee, read an essay on the Endemic and Epidemic Diseases of Henry County, during 1866.

Moved and carried, That the Association return a vote of thanks to Dr. Nance, for his very interesting essay.

Dr. Holton, of Buda, read an interesting paper, entitled "Remarks on Different Subjects," being a detailed history of a variety of cases, of much interest, coming under his care during the past summer.

REPORT OF CASES, AND PRESENTATION OF MORBID SPECIMENS.

Dr. Woodward, of Galesburg, presented the calvaria of a boy, *æt.* 15, coming under his observation while in service in the army, who had been kicked by a horse over the right supra-orbital region four years prior; portions of the frontal bone having been removed by a physician in Madison, Wisconsin,

the patient suffering with epilepsy. The peculiar features in the case were, that the convulsions could be produced at any time by pressure upon the cicatrix, and continued as long as the pressure was maintained; and, that during the eighty hours prior to his death, he had two hundred distinct convulsions.

Dr. Nance, of Kewanee, presented a specimen of renal calculus, of the mulberry variety, with a history of the case.

Dr. H. S. Hurd, of Galesburg, reported an exceedingly interesting case of aneurism of the innominate artery, and right sub-clavian.

Dr. Scott, of Kewanee, reported a case of anchylosis and caries of the right elbow-joint, occurring in a boy *æt.* 13, of scrofulous habit; after inflammation of the synovial membrane and cartilages of the joint. When the case came under the Doctor's care, it was of several months' duration. Amputation resulted in recovery. The morbid specimen was exhibited to the Association.

Dr. Holton, Chairman of the Committee of Resolutions, in respect to Prof. Brainard, deceased, reported:—

Resolved, That, on account of a dispensation of Providence in removing our brother, Prof. D. Brainard, from our midst, we recognize the hand of Him who is the author of our being, and we desire to say, His will be done.

Resolved, That our brother had acquired the reputation of being among the first as a teacher, and as an operator in surgery; and that his character and position for usefulness was world-wide; therefore, we deplore his loss as irreparable.

Resolved, That in his life we see encouragement to persevere in our efforts to arrive at a position of distinction, and to improve our ability to alleviate the sufferings of humanity; and we regard him as a worthy example for the profession.

Resolved, That we sincerely condole with the remaining members of the family.

[Signed] N. HOLTON, M.D., JOHN EWING, M.D., H. S. HURD, M.D., } Committee.

Moved, by Dr. Holton, and carried, that a committee of five be appointed, to report on surgery, practice, obstetrics, materia medica, and therapeutics.

The Chair reported the following gentlemen on said committees:—

Surgery—Drs. Hamilton and Spalding, of Knox; Crossley, of Bureau; Secord, of Henry; Webster, of Warren.

Practice—Drs. Latimer, of Bureau; Hume, of Henry; H. S. Hurd, of Knox; Crawford, of Warren; Boardman, of Stark.

Obstetrics—Drs. Nance, of Henry; Holton, of Bureau; Webster, of Warren; Morse and Woodward, of Knox.

Materia Medica and Therapeutics—Drs. Ewing, of Warren; Smiley, of Henry; H. M. Hurd, of Knox; Clark, of Henry; Breed, of Bureau.

Moved, by Dr. Nance, and carried, that the President shall notify the committees one month before the meeting of the Association.

The President appointed Drs. Burlingham, of Knox, and Webster, of Warren, on special essays.

Moved, by Dr. Holton, and carried, that the President and Secretary be a committee on publication.

Moved, by Dr. Crossley, and carried, that a vote of thanks be returned to the members of the profession in Galesburg, for their courtesy; also to the Christian Association, for the use of their hall.

Moved, by Dr. Spalding, and carried, that we adjourn, to meet at 10 o'clock A.M., on the second Tuesday in May, 1867, at Monmouth.

A. H. THOMPSON, *Pres't.*

GEO. H. SCOTT, *Sec'y.*

MORGAN COUNTY MEDICAL SOCIETY.

Thursday, December 11th, 11 o'clock, A.M. Society met pursuant to adjournment.

Dr. Wagely was elected to preside, in the absence of the President and Vice-President.

The Secretary read the minutes of the last meeting, which were adopted.

The President called for the report of committees.

Committee on examination of credentials reported unanimously in favor of Dr. Dutton for membership, who was immediately elected by unanimous vote.

The committee on fee bill reported that they would be prepared to submit to the Society the result of their labors at the afternoon session.

Dr. Prince exhibited several varieties of instruments for producing spray for medication of the air-passages, and for deadening the sensibilities of parts in order to lessen or prevent the pain attendant upon surgical or dental operations. He went briefly into a history of the introduction of the method of inhaling medical substances blown off in spray, as first practiced in France and Germany, and then explained the instrument invented by Dr. Richardson, of London, for the production of insensibility of parts by blowing upon them a spray of ether or rhigoline, which is capable of freezing in a few seconds by the tendency of rapid evaporation to produce cold. He exhibited an ingenious modification of the apparatus devised by Dr. Black for the purpose of shielding the lips and tongue from the spray while it is being blown upon the gums preparatory to extracting teeth.

Dr. Prince referred to cases in which union by the first intention had occured under unfavorable circumstances after the application of the spray of ether to the cut surfaces. He thought this result was secured by the speedy arrest of the flow of blood from the minute vessels under the influence of cold.

Dr. Edgar confirmed this view, by selecting cases occuring in connection with the battles at Vicksburg, in which union by the first intention had been secured by the application of ice to the wounds immediately after the amputation and before the final dressing.

Dr. Black made some remarks explanatory of his employment of the spray in extracting teeth, thinking the instrument a valuable means of lessening or destroying sensibility. In some cases he had found patients unable to bear the sudden reduction of the temperature on account of the exposed and irritable condition of the nerve of the tooth. In some of these

cases he had succeeded in employing the spray by first covering the tooth with wax.

On motion it was resolved that the thanks of the Society be tendered Dr. Black for his valuable contribution to dental surgery.

The subject of local anæsthesia being under consideration, Dr. Edgar related a case of anchylosis of the elbow-joint of a young lady, treated with chloroform and olive oil to the joint, enclosed in oil silk to prevent evaporation, by which means all sensation was removed, the adhesions were broken up and the joint restored.

Society adjourned to meet at 2 P.M.

At 2 o'clock P.M., the Society met. The Vice-President in the chair.

Dr. Warriner presented samples of his purified castor oil to the society for inspection and trial.

Committee on fee bill, Drs. Askew, Fisher, and Prince, submitted the following list of prices, for the establishment of a somewhat uniform rate of compensation for medical and surgical practice in the county:

For the purpose of a general guide in grading compensation for professional services, the following estimate is accepted by the members of the Morgan County Medical Society:

The higher charges for services of a surgical nature do not imply greater attainments than are required for skilful medical practice, but they are considered necessary in view of the less frequency of the cases and the expense necessarily incurred in providing instruments and apparatus.

Each member is still left to his full discretion to increase or diminish his own rate of compensation, in view of the pecuniary circumstances of his patients, or as a conscientious estimate of the value of his services, compared with those of members of greater or less attainments.

Ordinary office advice, not consuming much time, and involving no unusual care in investigation,	$1 00
Careful investigation in a physician's office or elsewhere, consuming considerable time, and	

often requiring the introduction of a sound or catheter, the employment of chemical tests, the introduction of an exploring needle, the employment of a speculum, a stethescope, an ophthalmoscope, or a laryngoscope, by those skilled in these means of investigation,------- 5 00 to 25 00

Visit in town---------- 1 50 to 3 00

Subsequent visits same day without special call, 1 00 to 2 00

Night Visit,---------- 3 00 to 5 00

Extra patients in same family, each,---------- 1 00

Mileage—day,---------- 1 00

" —night,---------- 2 00

Obstetrics, uncomplicated, within three miles,--- 10 00 to 25 00

Delivery, by turning, forceps, or perforation,--- 25 00 to 50 00

Subsequent visits in town for the first three days, to be included in the charge, unless fever, inflammation, or other complication render unusual attention necessary.

Subsequent visits in the country, the same as in other cases.

Attendance on small-pox, per visit, (mileage extra), ---------- 5 00

Consultations (mileage extra),---------- 5 00 to 10 00

Gonorrhœa and syphilis, in advance,---------- 10 00 to 50 00

Minor surgical operations, like opening abscesses, dressing bruised fingers, bleeding, cupping, the formation of issues, and the introduction of setons, ---------- 1 00 to 5 00

Dressing injuries of greater extent or danger, including fractures and dislocations, easily treated, and the ligation or acupression of arteries in wounds of little importance, the amputation of toes and fingers, circumcision, the removal of the tonsils—the uvula, etc.,---------- 5 00 to 25 00

Dressing large or dangerous wounds, requiring the closure of important arteries to arrest hemorrhage, adjusting fractures and dislocations of greater magnitude or involving greater difficulties, the operation for hydrocele, for hair-lip,

for strabismus, paracentesis, amputation of the breast, castration, the removal of tumors, not involving great difficulties, staphytorephy, laryngolemy, eridectomy, amputation, or extraction of the eye, ---------- 25 00 to 100

Capital operations, including the larger amputations, resections, and exsections, and the removal of the paroted gland, trephining, ovariotemy, herinotomy, lithomy, the more difficult plastic operations, the reduction of dislocations which have resisted previous attempts, the adjustment of oblique fractures of the thigh and of those involving the neck of the femur, or of the knee-joint, compound and comminuted fractures of the larger bones and joints, extraction of cataract, and the formation of artifical pupil, ---------- 100 to 1,000

Subsequent attendance the same as in other cases.

The President declared any remarks on the subject to be in order.

Dr. Cassell thought a fee bill might be referred to as a general guide, but that great latitude must be allowed for varying circumstances, which the physican must respect.

Drs. Craig, Askew, Reed, Fisher, Johnson, and others offered remarks on the subject, when the list of prices, as submitted by the committee, was adopted by unanimous vote.

The Vice-President reported a novel and interesting case of menstruation and escape of liquor amnii during eight months of pregnancy.

Dr. Wagely moved the subject of puerperal fever be taken up.

Dr. Prince apologized for the delay of his paper on that subject, and promised it should be forthcoming at the next meeting.

Dr. Edgar called attention to the liability of error in practice from failure to diagnose correctly the pathological condition in each case of puerperal fever, *i.e.*, whether dependent on a true

toxæmia, or on metritis, phlebitis, peritonitis or metroperitonitis. That the toxæmic condition being attended with an asthenic grade a fever indicated a supporting treatment while the purely inflammatory cases might be better treated by early free depletion and full exhibition of anodynes.

The further consideration of the subject was postponed until the next meeting.

On motion the Society adjourned to meet on the second Thursday of January, 1867, at 1 o'clock P.M.

R. E. McVEY, M.D., *Pres't.*

C. T. WILBUR, M.D., *Sec'y.*

QUINCY MEDICAL SOCIETY.

The semi-annual meeting of the Quincy Medical Society was held at the office of Dr. Zimmermann, in Quincy, Nov. 18th, 1866.

A quorum being present, the President, Dr. C. A. W. Zimmermann, called the meeting to order. The proceedings of the annual meeting having been read and approved, the President proceeded to deliver his able and elaborate essay upon Bright's Disease. The manner in which he treated the subject may be inferred from the following extract from the exordium:—

"I discharge this obligation with no inconsiderable degree of pleasure, inasmuch as this subject is classed among the most interesting in pathology; and I intend discussing it by strictly following the medical literature as far as it deals with facts, and particularly as far as it touches the anatomy of this disease, and eschews hypothesis; while I shall sometimes mention my own experience, which is naturally enough based on observations in view of the sick couch, and the therapeutics of the disease, which are without exception open for discussion." The President entered at length into the consideration of the causes, pathology, diagnosis, prognosis, and treatment of Bright's disease.

On motion, resolved, that the thanks of this Society be tendered to the President for his able essay, and that a copy is hereby requested for publication.

The Secretary then read the history and treatment of two cases which had come under his observation since the annual meeting:—

Case I. *June 21st, 1866.* Was requested to visit Mrs. S., aged 25 years. I learned from her that she had been confined to the bed seven weeks, and had vomited, most of the time, every hour. The matter ejected is described as green and yellow; urine natural in quantity, specific gravity 1.011, acid, not albuminous. The last menstrual period occurred about four months since, as near as she recollects. She is greatly emaciated, very feeble, and takes but little nourishment. The mamma is flaccid and wasted, no change has occurred in the nipple or in the areola about it. On vaginal examination, the uterus was found enlarged, and the os hard and fissured. Prescribed one teaspoonful of Ellis' wine of pepsin in a wineglass of water three times a-day, and one tablespoonful of lime-water and two of milk every two hours, with beef-tea for nourishment.

22d. The symptoms not materially changed. Directed the treatment to be continued.

23d. Patient no better; has vomited every hour, and has not slept during the night. A consultation was agreed upon, and Dr. L. H. Baker of this city called. After a careful examination, it was decided that there is no evidence of a living fœtus in the uterus, but even if there were, the dangerous condition of the mother demands interference. A speculum was introduced and the *os* brought to view, and a sound passed into the uterus three inches, no fluid followed its withdrawal. A sponge tent was then passed into the *os* and the patient directed to take the medicine as before.

24th. The patient has not vomited as much as formerly, and has taken more nourishment. The tent is not to be found in the vagina, and cannot be seen in the os through the speculum, and the supposition is entertained that it may have passed away unobserved. Introduced a larger tent, and directed treatment to be continued.

25th. The vomiting ceased during the day and returned at night. On examination, the tent cannot be found; introduced another with a small cord attached to it.

26th, 9 o'clock A.M. Has vomited less than formerly. Removed the tent and introduced another. *2 o'clock P.M.* Quite an offensive discharge has occurred, and the patient complains of pain in the back. Removed the tent and found the *os* considerably dilated; on passing the finger, the two tents first used were found within the *os* and removed.

27. The patient is more quiet and vomits less. Continue the medicine.

28. The remains of a fœtus passed away during the night; it is six inches in length, and weighs one ounce troy; it is much wasted; the skin is wanting; the head collapsed; the walls of the chest and abdomen wanting; no trace is found of the lungs, diaphragm, stomach, or intestines; the heart, liver, and kidneys were observed in their natural positions. The fœtus has, doubtless, been dead several weeks, and the placenta probably been absorbed, as it has not passed away, and cannot be discovered on examination. No flooding has occurred. Prescribed 5 grs. of pulvis ergot, to be taken every three hours, and a teaspoonful of a saturated solution of sulphite of soda three times a-day.

30th. The vomiting continues frequently, and is supposed to be excited by the medicine, which was discontinued, and the wine of pepsin and lime-water resumed, and milk freely taken for nourishment.

July 1st. The vomiting has now ceased, and the patient's condition satisfactory in every respect. No unfavorable symptoms afterwards occurred, and the patient made a very rapid recovery.

Remarks.—The irritation of a dead fœtus in the uterus has been referred to by authors as one of the causes of abortion; but it is evident that it does not always give rise to this result. Tyler Smith refers to a case, in which the fœtus died at the fourth month, but was not expelled until the full term. As the sound of the fœtal heart cannot ordinarily be heard until after the fourth month, we have no certain evidence by which we can infer the death of the fœtus. In the cases which have come under my observation, I have found the mamma flaccid, the nipple and its areola without any of the ordinary indications of

pregnancy, the neck of the uterus harder, and the os more patulous than usual in that condition. It seems desirable that more careful and extended observations be made, as to the symptoms which indicate the presence of a blighted fœtus *in utero*. In this case, if its presence had been known at an earlier period, the patient might have been saved several weeks of distressing illness.

Case II. Was called to visit Mr. B., aged 35, in consultation with Dr. L. H. Baker, of this city, September 3d, 1866, and found the patient suffering from narcotism. The following is the history of the case, as given by the attendants:—

The attention of his wife was called to him by an unusual snoring, and, on going into his room, she found him quite insensible, and nearly black in the face and neck. Supposing him to be in a fit, she attempted to give him some wine, spirits of camphor, and other restoratives, of which he swallowed but little, and that at the risk of strangling. Just at that time, she found in his pocket an empty bottle, labelled laudanum.

Dr. Baker was called immediately, and gave him, 10 minutes before 4 o'clock, 20 grs. of sulphate of zinc, and repeated the dose in 5 minutes, without effect. I arrived 25 minutes after the emetic had been given. Not having had its effect, it was thought best to use the stomach pump. About one quart of warm water was thrown by it into the stomach and immediately pumped out with the whole of its contents, which gave a strong odor of laudanum. This was repeated three times, and about a gallon of water, in all, was used, the last of which was returned nearly clean and devoid of smell of laudanum. During this time, the patient remained entirely insensible, with the eyes closed, the pupils contracted, respiration slow and stertorous, pulse slow, with other symptoms of narcotism.

After thoroughly emptying the stomach, a galvanic battery was used for nearly two hours, one pole applied to the upper part of the spine and the other to the front of the chest. About one hour after the stomach was evacuated, and while using the battery, the patient began to sink, the respiration became reduced to four in a minute. Dr. Baker resorted to artificial

respiration (in addition to the battery) which was kept up by by Hall's method, about a-quarter of an hour, until an improvement occurred in the respiration, which continued until the patient was fully restored. No unpleasant symptoms followed excepting vomiting, which occurred at intervals during the night.

It was subsequently ascertained that the patient took two ounces of tincture of opium at 10 o'clock A.M., and also two ounces at 1 o'clock P.M; and that he was not in the habit of taking opium or laudanum; that he took it for a diarrhœa, which he had for three or four days. The apothecary says the tincture of opium sold the patient contained just one-half the officinal quantity of opium.

On motion, Dr. J. F. McCormic was appointed essayist for the next meeting.

On motion, Dr. A. Niles was appointed delegate to the State Society.

On motion, resolved, that the proceedings of this meeting be published in the CHICAGO MEDICAL EXAMINER, and an abstract of them in our city papers.

ADDISON NILES, *Sec'y.*

Book Notices.

THE SCIENCE AND PRACTICE OF MEDICINE. By WILLIAM AITKEN, M.D., Edin., Prof. of Pathology in the Army Medical School; Corresponding Member of the Royal Imperial Society of Physicians of Vienna, etc., etc., etc. In two volumes. From the fourth London edition, with additions by MEREDITH CLYMER, M.D., late Professor of the Institutes and Practice of Medicine in the University of New York, etc., etc. Philadelphia: LINDSAY & BLAKISTON. 1866.

We have received from the publishers, the first volume of this work, with a notice that the second volume will be through the press in a few days. We have only time and space now to say that the American publishers have issued the work in good style; and that it constitutes a very full and valuable treatise

on practical medicine. All our readers who desire a very full summary of the present condition of practical medicine in Great Britain, will certainly find it in this work. When we have received the second volume, we will notice it more in detail. Price of complete work $12.00

We have also received from their respective publishers the following valuable works:—

Clinical Notes on Uterine Surgery, with Special Reference to the Sterile Condition. By J. Marion Sims, A.B., M.D., late Surg. to Women's Hospital, New York; etc., etc. New York: William Wood & Co., 61 Walker Street. 1866. pp. 401.
For sale by W. B. Keen & Co., 148 Lake Street.

A Hand-Book of Ophthalmic Surgery for the Use of Practitioners. By J. Z. Laurence, F.R.C.S., M.B., (Uni. Lon.) Surgeon to the Ophthalmic Hospital, Southwark, etc., etc., etc., etc. And Robert C. Moore, House-Surgeon to the Ophthalmic Hospital, Southwark. With numerous illustrations. Philadelphia: Henry C. Lea. 1866.

An Index of Diseases and their Treatment. By Thos. Hawkes Tanner, M.D., F.L.S., Member of the Royal College of Physicians, etc. Philadelphia: Lindsay & Blakiston. 1867. pp. 397. Price $3.00
For sale by S. C. Griggs & Co., Lake St., Chicago.

Conservative Surgery, as Exhibited in Remedying some of the Mechanical Causes that Operate Injuriously both in Health and disease; with Illustrations. By Henry G. Davis, M.D., Member of the Amer. Med. Association, etc. New York: D. Appleton & Co., 443 and 445 Broadway. 1867. pp. 315.
For sale by S. C. Griggs & Co., Lake St., Chicago.

A Treatise on the Principles and Practice of Medicine; Designed for the use of Practitioners and Students of Medicine. By Austin Flint, M.D., Prof. of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, and in the Long Island College Hospital, etc., etc. Second

edition, revised and enlarged. One volume. Philadelphia: Henry C. Lea. 1867. pp. 967.

For sale by W. B. Keen & Co., 148 Lake St. Price $7.50.

Practical Therapeutics, Considered Chiefly with Reference to Articles of the Materia Medica. By Edward John Waring, F.R.C.S., F.L.S., Surgeon in Her Majesty's Indian Army. Philadelphia: Lindsay & Blakiston. 1866. pp. 815.

Editorial.

CHICAGO MEDICAL SOCIETY.

Jan. 18th. The regular meeting of the Society was almost wholly occupied with the subject of City Health Regulations. Dr. N. S. Davis, from the Special Committee on that subject, made the following report, which, after free discussion, was adopted. The Committee was instructed to present the same to the Common Council, with the draft of an amendment to the present laws, as indicated in the report.

REPORT OF THE COMMITTEE ON THE HEALTH DEPARTMENT OF OUR CITY GOVERNMENT.

Presented to the Chicago Medical Society, January 18th, 1867.

The subject assigned to your Committee for consideration, is certainly one of the most important that can engage the attention of the people of this, or any other large city. The adoption and enforcement of proper sanitary regulations is so closely connected with the preservation of health and the prolongation of life and happiness, that no community can neglect them without, sooner or later, suffering the severest penalties. In fulfilling the duties assigned to your Committee, three questions require careful consideration.

1st. What are principles upon which a Municipal Health Department should be organized, in order to ensure the highest degree of enlightment and efficient action?

2d. Is the present organization of the Health Department of our city defective; and if so, in what particulars?

3d. What changes are necessary to remedy its defects, and complete its efficiency?

In answer to the first question, we would state, that the basis of a proper Health Organization, should consist of a Board of Commissioners, embodying in its members a high degree of executive ability or business capacity, and a thorough knowledge of *sanitary science*, as applied to the preservation of the health of communities and the prevention of the spread of contagious diseases. No board can embody these qualities, without being composed in part, at least, of thoroughly-educated physicians; simply because, in our country, no other class of men are educated to an adequate extent, in reference to those sanitary subjects on which a Board of Health must continually act. The truth of this proposition is too plain to need either argument or illustration.

A Board of Health Commissioners, composed of properly educated and qualified members, should be invested with sufficient power to devise and carry into prompt effect, all such measures as the safety and welfare of the community requires. The term of office of its members should be long enough to insure a reasonable degree of permanency in whatever sanitary measures or policy may be adopted. In no department of municipal affairs, is a vaccillating, temporizing policy more disastrous than in that relating to the preservation of the public health. A show of energy, or a display of zeal, or a prodigal expenditure of money just while some fearful epidemic disease is threatening to commence its work of death, and a negligent indifference at all other times, is but little better than no action at all. Sanitary measures, to be successful in lessening the sickness and mortality of communities, and in protecting them from the ravages of epidemics, must be founded on an accurate knowledge of all those local causes that tend to deteriorate the public health, and then they must be rigidly and perseveringly enforced from year to year.

To enable a Board of Health Commissioners to devise such measures, and establish an enlightened and permanent sanitary policy, its members should not only possess the requisite educa-

tion and business capacity, with a term of office long enough to add experience to their previous knowledge, but they should be appointed in such a manner as to free them as far as possible from all partisanship, or feelings of dependence on the success or failure of mere political parties. And yet they should be fully accountable to the municipal government for all their official acts. Such are the principles on which a Board of Health Commissioners should be organized.

The next question is, how far the present health department of our city government is organized in accordance with these principles, and in what particulars is it defective? Our present Health Department consists of a Board of three Commissioners, who are also at the same time Commissioners of the Police and Fire Departments; a Health-Officer; and a City Physician. The three members of the Board are elected by the people, one from each division of the city, and hold their offices for six years. The Health-Officer is appointed by the Board. The City Physician is elected by the Common Council, and holds office for two years.

The present city charter confers on the Common Council power "to do all acts and make all regulations which may be necessary or expedient, for the preservation of health, and the suppression of disease." And, in accordance with this power, we find in the present laws and ordinances of the city full and ample powers conferred and duties enjoined upon the Board of of Health and Health-Officer, for the efficient and thorough regulation of everything relating to the public health and safety. After a full examination of the present laws and ordinances, we can see no need of further legislation, so far as relates to the conferring of power upon the Board of Health or its agents.

Wherein, then, is the present organization defective? Chiefly in three important particulars. The first and most radical defect is, the absence of all provision for securing the selection of members of the Board of Health so thoroughly educated in sanitary matters as to fit them for an enlightened and efficient discharge of their duties. To make up a Board of Health, charged

with the duty of making and enforcing all such regulations as are necessary to mitigate or prevent the prevalence of diseases in a great city, of men who, neither by education, occupation, nor business habits, have acquired any special knowledge of the nature and causes of disease, or of the laws by which they are developed and diffused, is just as absurd as it would be to elect a practising physician to the office of City Attorney. If there is lack of efficiency in the practical working of our present health organization, it is not because the members of the present Board of Police, acting as a Board of Health, are deficient in integrity or business capacity, or from deficient legal authority to act, but simply because they have not that special sanitary or medical education which enables them to comprehend clearly the nature, extent, and importance of the work entrusted to them.

The second defect consists in an imperfect and injudicious distribution of duties between the Health-Officer, City Physician, and Clerk of the Board of Health. The Health-Officer shall be simply an intelligent and efficient executive officer, to superintend the prompt enforcement of all the laws and orders of the Board of Health. The City Physician should keep at all times a free *vaccine* dispensary for the poor, and have the immediate charge or superintendence of such sick persons as came under the care and authority of the Health and Police Departments of the City Government. And there should be a competent Clerk, who should perform the duties of Secretary to the Board of Health and the Health-Officer, and also the duties of Register of Vital Statistics.

The third defect in the present organization is the absence of efficient regulations for the accurate registry of births, marriages and deaths, with the causes of the latter. The importance of this needs no comment here. After a somewhat careful and candid examination of the whole subject, we feel certain that whatever inefficiency or defectiveness there is in the practical working of the present health organization of our city, can be traced directly or indirectly to the three sources just enumerated. This leads us to the third and last question

involved in this report, namely: What changes are necessary to remedy the defects to which we have alluded? We answer, so far as State legislation is concerned, we need but a single brief amendment to the laws now in force. If the present law relating to the action of the Board of Police, in the capacity of a Board of Health, was so amended as to provide for the appointment of three thoroughly competent Physicians, (one from each Division of the City,) to act with said Police Commissioners in all matters pertaining to health or sanitary regulations, to possess coëqual powers and duties, and to constitute a part of said Board whenever acting in the capacity of a Board of Health, it would be all the legislation really required. This done, the other defects pointed out could be easily remedied under the authority already possessed by the Common Council and Board of Health. While the proposed amendment should leave the present mode of electing the three Police Commissioners undisturbed, it should provide some other and less political method of appointing the *three* medical members of the Board acting as a Board of Health. Those members of our profession who have acquired that education, experience, and reputation, which would enable them to impart that kind of intelligence and efficiency to a Board of Health, imperatively needed in all large cities, will never be found seeking nominations from political parties, nor lobbying for appointments by a Governor and Senate, or a Mayor and Council. They must be sought ought and invited to accept the position, or their services will not be obtained. We would suggest whether this would not be done more judiciously and with less reference to anything of a political or partisan character, by the Judges of the Superior Court of this city, than by any other authority. It will be seen that the defects we have pointed out and the remedies proposed are few and simple; yet they are really of vital importance to the practical working and beneficial results of the Health Department of our city.

Should the views thus far expressed in this report meet the approbation of this Society, an amendment could be prepared in due form, relating to the appointment of three com-

petent medical men as members of the Board of Health, and an ordinance in relation to the proper registry of vital statistics, and we have no doubt but both would meet the prompt sanction of the Mayor and Council. Before concluding this report, it may be expected that some notice will be taken of the several amendments and health bills which have already been prepared and placed before the Legislature, the Council, and the public. There are three separate projects of this kind. The first consists in amendments to the present laws prepared and recommended by the Common Council. The only item in these, that relates to the important defects we have explained, is the section proposing to give the Common Council power, in cases of imminent danger from the prevalence of epidemic diseases, to appoint an additional number of members of the Board of Health, to act as such simply while such danger lasts. But it is not provided that even these temporary appointees shall be medical men. And hence it does not in any degree remedy the radical defect in the constitution of of the present Board. The second project is in the form of a bill recently introduced into the State Senate by Senator WARD. By the provisions of this bill, everything pertaining to the Health Department, and sanitary regulations, is removed from the control of the people of the city and its municipal government, and placed in the hands of a Board of Commissioners, consisting of the President of the Board of Police, and two Commissioners appointed by the Governor and Senate, one of whom must be a physician. The two persons thus appointed by the Governor and Senate are to hold office four years, and, with the President of the Board of Police, constitute a Board of Health, with full power to make all needful rules, regulations, and appointments of agents, etc., sufficient to devise and execute a complete and independent sanitary system. There are two leading and fatal objections to this bill. The first is, that it deprives the people of this city of all power to regulate and control some of their most important local interests, and assumes that a Governor and Senate, at Springfield, are better qualified to judge of the capacities and qualifications for office,

of citizens of Chicago, than are the local authorities of the city, or the people themselves. The second, and more important objection is, that it creates a large number of new and additional officers and employés, requiring a regular annual additional tax upon the city, of from $75,000 to $150,000, without regard to any *extraordinary* expenditures on account of the prevalence of severe epidemics. And yet it does not provide for the accomplishment of a single valuable object, that would not be as well and certainly accomplished, by simply adding *hree* thoroughly competent physicians to our present Board of Health. Serious objections could also be made to several items in the details of this bill. For instance, the section relating to the registration of births, marriages, and deaths, is utterly worthless.

The third project is that presented by the Citizens' Committee, and entitled the "Metropolitan Health Bill." This is amenable to precisely the same objections as we have made to the bill introduced by Senator WARD; while, practically, it would be far less efficient. Like WARD'S bill, it takes from the people and local authorities the selection of a Board of Health, and confers it on the Governor and Senate, at Springfield. Like WARD'S bill, it creates a long list of new and additional city officers and employees, requiring a correspondingly large additional expenditure of money annually. But, unlike WARD'S bill, it does not fix the salary of the members of the Board of Health, or provide for the appointment of a full corps of Sanitary Police. It allows the Common Council to fix their salaries, thereby making the officers perform the difficult task of serving two masters; the Governor for their appointment, and the Council for their pay. Again, by depending in part upon the ordinary police for executing the orders of the Health Board, it places the police in the equally embarassing position of obedience to the orders of two separate and independent Boards—a plan that never has and never will work satisfactorily in practice.

In conclusion, we cannot refrain from again expressing the opinion, that a single amendment to our present laws, provid-

ing for the addition of *three* competent and thoroughly educated members of the medical profession to the present Board of Health, with the aid of one additional Clerk, as Register of Vital Statistics, would result in rendering our Health Department as efficient and beneficial to the interests of the city, as it could be by any number of new and expensive schemes. It would require but one police organization, capable of being increased or diminished, as public exigencies might require, and practically amenable to but one Board.

It would require a larger ratio of medical to the non-medical intelligence in the Board of Health, than is proposed in either WARD'S bill, or that of the Citizens' Committee. Instead of requiring an annual aggregate increased tax upon the city of $75,000 or $100,000 for salaries of new officers and agents, it would require for the *three* additional members of the Board of Health and the Register of Vital Statistics an aggregate of not over $5,000. It would also leave our City Government far less complicated in its details, and, in all its strictly local interests, under the control of its own citizens, where it properly belongs.

All of which is respectfully submitted.

N. S. DAVIS,
R. C. HAMILL,
J. P. ROSS,
} Committee.

MEDICAL DEPARTMENT OF UNIVERSITY OF MICHIGAN.—We have seen in some of our exchanges, a statement of the number of Medical Students in the University of Michigan, accompanied by the assertion that the large number congregated there could not have been drawn thither by the small pecuniary charges, as the aggregate of attendance is greater, owing to the length of the Lecture-term, than in any other school in the North-west. The entire falsity of such a statement is shown by the following facts:—

The fee for admission to the Medical Department of the Michigan University is, for students in the State $10, from out of the State $20, paid but once. The Lecture-term being six

months, allowing $25 per month for board, would make a total necessary expenditure for the full term of $160 for the student of the State, and $170 for students from other States. The Chicago Medical College, in this city, has a Lecture-term of full five months. If we put board here at the same rate as supposed for Ann Arbor, namely, $25 per month, the cost of attending the regular annual course here, would be as follows:—

Five months board, at $25 per month,	$ 125 00
Lecture fees,	50 00
Matriculation fee,	5 00
Dissecting fee,	5 00
Hospital fee,	6 00
Total,	$191 00

Clinical Items.—A subscriber wishes to know how to cure "an obstinate, tormenting, intolerable itching, of years standing," either in the genital organs of the female or around the anus of the male.

The following cases may answer his purpose:—

Case I. Mrs. B., a married lady, aged about 25 years, had been for several years subject to periodical attacks of puritus pudendi, or intolerable itching of the labia and vulva. She generally suffered most from it after the menstrual periods, and it was generally accompanied by a thin leucorrhœal discharge. She was placed on the following treatment:—

℞.	Ext. Hyoscyamus,	30grs.
	Sulph Ferri,	30grs.
	Pulv. Aloes,	15grs.
	Blue Mass,	10grs.
	Ext. Nux Vom.,	10grs.

Mix and divide into thirty pills. One to be taken before breakfast and dinner each day. For local use she was directed a solution of borate of soda (borax), ℥iij and sulphate of morphia, 20grs., in water, one pint, the vulva to be wet with it often, and a small quantity injected into the vagina each night and morning. Under this treatment the patient recovered, without any return of the disease.

Case II. Mrs. W., aged 40 years, had been very severely troubled with the same disease several months, without any regard to the menstrual periods. The same solution of borax and morphine, applied locally, and the use of eight drops of Fowlers's arsenical solution, taken before each meal, in a spoonful of sweetened water, and continued for about four weeks, resulted in a cure. Both patients were required to live on plain food and to avoid all stimulating drinks.

Case III. Mr. G., aged 30 years, sanguine temperament and full habit, had pruritis of the anus for three years. Sometimes the itching would be intolerable for several days and then better for a week or ten days at a time. On examination, the skin, over a circle of an inch, around the opening of the rectum, was thickened, slightly fissured, and whiter than usual. He was directed to take eight drops of Donovan's solution before each meal time, and the affected surface was wet with the liquid persulphate of iron, of the strength usually found in the drug stores, every third day. After four local applications he was entirely relieved. He continued to take the drops internally for three weeks, and although more than one year has elapsed the disease has not returned.

I recollect treating several cases of old chronic cases of pruritis ani sucessfully, by applying locally, each night and morning, the following ointment:

℞. Iodide Sulphur,---------- ℈ij
Oil Tobacco, ---------- 2gtts.
Simple Crete,---------- ℥ij

Attention should always be paid to the general health, and especially to the condition of the digestive organs.

The Chair of Surgery in Rush Medical College.—According to statements in the daily papers of this city, the chair of Surgery made vacant by the death of the late Prof. D. Brainard, has been filled by the appointment of Moses Gunn, of Detroit, Professor of Surgery in the University of Michigan. It is also stated that Prof. Gunn has accepted the appointment.

CITY MORTALITY.—The following is the report of the Health-Officer of the mortality of the City of Chicago for the month of December, 1866:

CAUSES OF DEATH.

Accidents,	4	Fever, Scarlet,	13
Asthma,	2	Fever, Typhoid,	4
Bronchitis,	1	Fever, Typhus,	1
Burned,	1	Fever, not stated,	1
Cancer,	2	Hydrocephelus,	7
Childbed,	2	Inflammation of Kidneys,	1
Cholera Infantum,	1	Inflammation of Bowels,	9
Consumption,	42	Inflammation of Lungs,	6
Convulsions,	35	Inflammation of Liver,	1
Croup,	7	Marasmus,	1
Cold,	2	Old Age,	15
Chicken Pox,	1	Palsy,	2
Congestion of Brain,	3	Pneumonia,	7
Congestion of Lungs,	2	Phthisis Pulmonalis,	1
Decline,	1	Spasms,	1
Delirium Tremens,	1	Spinal Meningitis,	1
Diarrhœa,	5	Suffocation,	2
Diphtheria,	15	Small Pox,	2
Disease of Heart,	8	Suicide,	1
Disease of Liver,	2	Stillborn,	10
Disease of Lungs,	7	Teething,	3
Disease of Brain,	6	Whooping-Cough,	17
Dropsy,	7	Gun shot Wound,	1
Drowned,	2	White Swelling,	1
Erysipelas,	3	Unknown,	33
Fever, Childbed,	2		
Fever, Remittent,	4	Total,	309

AGES OF THE DECEASED.—Under 5 years, 153; over 5 and under 10 years, 19; over 10 and under 20, 15; over 20 and under 30, 28; over 30 and under 40, 34; over 40 and under 50, 16; over 50 and under 60, 11; over 60 and under 70, 11; over 70 and under 80, 12; over 80 and under 90, 6; unknown, 4. Total, 309.

NATIVITIES.

Chicago,	128	England,	5	Sweden,	5
Other States,	63	Germany,	47	Scotland,	4
Belgium,	1	Ireland,	38	Wales,	1
Bohemia,	2	Norway,	6	Unknown,	6
Canada,	2	On the Sea,	1	Total,	309

DIVISIONS OF THE CITY.

North,	75	South,	105	West,	129	Total,	309

Total number during the month of November, 382
Decrease from last month, 73
Total number last year for the month of December, 333

DR. CONNEAU.—It has been remarked that nearly every profession but that of medicine was represented in the French Senate. This anomaly has struck the Emperor, it would appear, as the *Evenement* announces that his Majesty's physician, Dr. Conneau, is to be promoted forthwith to a seat at the Luxembourg.

THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, MD, Editor.

VOL. VIII. FEBRUARY, 1867. NO. 2.

Original Contributions.

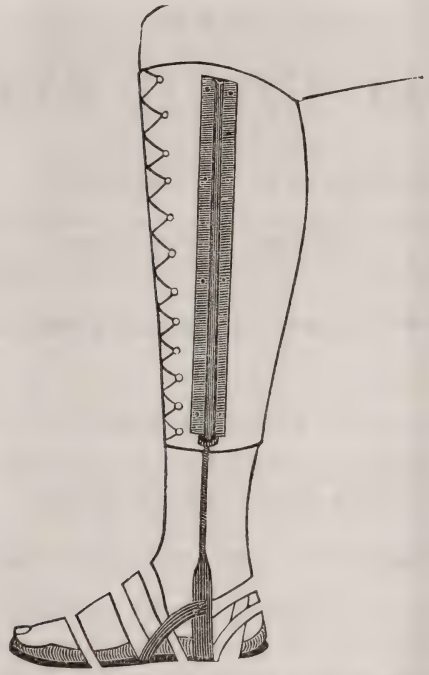
ARTICLE VIII.

A NEW APPARATUS FOR MAKING EXTENSION AT THE ANKLE-JOINT.

By JULIEN S. SHERMAN, M.D., Chicago.

While we have very efficient means for making extension at the hip and knee, and the results of such treatment have been so successful, the ankle-joint has not received the attention, in this direction, that its diseases demand. It is as necessary to remove pressure from an inflamed ankle as from an inflamed hip or knee-joint. The application is, however, more difficult, and, for that reason, has not been used as frequently as desirable. Dr. Sayre, some time since, devised an instrument for this purpose, in which both the extension and counter-extension were made by adhesive straps. These are liable to become torn and detached, requiring frequent renewal, especially those upon which the counter-extending force is brought to bear. At the same time, the patient is required, in most instances, to use crutches.

The annexed cut represents an apparatus which I have lately been using, and have found most satisfactory in every respect. The counter-extension is made by means of a *leather socket*, upon the same principle that I represented for the knee-joint, in the January No. of the Examiner.



Apparatus for Making Extension at the Ankle-Joint.

In order to construct it properly, a cast of the patient's leg, from the knee to the ankle, should be taken in plaster of Paris. It is not necessary to include the foot. A piece of sole leather should then be soaked in water, until perfectly soft and pliable, and then moulded and firmly tied upon the cast. It should remain in this condition until thoroughly dry, when it will be found to form a strong socket, *exactly* corresponding to the shape of the leg from which the cast was taken. A steel sole is then cut, the shape of the bottom of the foot, being somewhat narrower beneath the instep and heel. From this, and riveted to its under surface, rises, on either side, a steel rod, bent to the shape of the limb; upon its upper two-thirds a screw is cut. This rod is received into a tube, which is attached to the socket. The screw carries a nut, by which the extension is regulated. The rod is braced to the sole by an additional strip of steel on either side. The socket is lined with buckskin

and provided with eyelets and lacers. Padding is not necessary, as it corresponds so accurately to the limb that the pressure is easily tolerated. A layer of *sponge rubber* is placed upon the sole, which gives an elastic surface to strap the foot upon, and one which will not *pack or become hard*, as is the case with most substances used for this purpose.

The apparatus is applied by first adjusting and lacing the socket; the rods are next inserted in the tubes, and the steel sole brought up against the bottom of the foot; adhesive straps, an inch in width and sufficiently long to pass around the foot and heel, are next applied, so as to bind them firmly down to the sole; extension is then made, by turning the nuts upon the rods. By this means, all pressure upon the inflamed surfaces will be overcome, and the deformity of "talipes equinus," so frequent in diseases of this joint, prevented, and the best possible condition for recovery obtained. In walking, the patient bears all his weight in the socket, relieving entirely the ankle-joint.

ARTICLE IX.

CURE OF A CONFIRMED OPIUM-EATER.—RECORD OF THE SYMPTOMS.

BY E. ANDREWS, M.D., Professor of Surgery in Chicago Medical College.

I do not remember to have seen anywhere an accurate record of the symptoms which follow when an opium-eater breaks off suddenly from his pernicious indulgence. I am induced, therefore, to present the following case from my practice, believing that it will be instructive to the profession:—

R. G———, aged about 35 years, of good general habits and character, sent for me to his house, and informed me that he was addicted to the use of opium, and desired to break off the habit. He stated that the appetite was acquired from the long-continued prescription of anodynes by his physician, some

two years ago, during a painful sickness. Since then his tolerance had gradually increased, until his present allowance was ten grains of sulphate of morphia a-day, which he took in two doses. He informed me that he had no love for it, and had got past deriving any pleasure from its use; his daily allowance merely serving to keep him out of an intense but vague feeling of wretchedness, which seized upon him when he attempted to go without his doses. His countenance presented a slightly haggard and nervous aspect, but otherwise there was no appearance of physical or mental deterioration. He was very apprehensive, as most opium-eaters are, that total abstinence from his drug would kill him. I assured him that he would be very miserable for a few days, but that he would not die. I accordingly directed him to stop at once, and took his word of honor, to use no opiate unless I ordered it; I promised to watch him closely, and that if he incurred any danger of dying I could easily prevent that by giving some small doses of morphine, at the proper time. I further told him that he might as well die as be an opium-eater. I then removed all opiates from his house, and prescribed some pills of quinine, cannabis indica and hyoscyamus to occupy the attention of his nervous system. The following is the history of the subsequent days:—

1st Day.—Found him feeble, restless, very weak, and unable to get out of bed. Had no sleep, terribly restless, at times delirous, but though more generally rational. Has severe pains occasionally in the sternum, and the lower part of the spine, but the chief distress is an intolerable, undefinable "misery." His pulse is 95, and very soft and weak. His determination to persevere holds out well. Has frequent vomiting and some diarrhœa. The pills seem to be totally powerless to ease him. Gave a few inhalations of ether without any increase of comfort; potations of whiskey or brandy are vomited up. Every effort to find a substitute for the opiate seems almost a total failure. Oyster soup for nourishment.

2d Day.—Mind slightly wandering in the morning, but rational the rest of the day. Vomits occasionally, and has

slight diarrhœa. Pulse 68, and stronger. Milk punch with wine and crust coffee for nourishment. Cannot retain solid food. No medicine.

3d Day.—Mind wandering again in the morning. Pulse 66, but very feeble. Countenance shrunk. Some vomiting and diarrhœa. Feeling uneasy lest his prostration should go too far, I gave him three small doses of laudanum combined with hyoscyamus and cannabis indica. He revived so rapidly and decisively that I was satisfied that he was in no danger, and forbade any more to be given. Beef-tea with wine and crust coffee.

4th Day.—Morning. Slept five hours for the first time. Rational; no vomiting nor purging. Unable to sit up yet. Tincture of cinchona, hyoscyamus, and cannabis indica.

Afternoon. More prostrate. Hitherto his courage has kept up, and he has not asked for morphine. Now he is broken down and begs for it. Gave one small dose which exhilirated him surprisingly, forbade any more.

5th Day.—No vomiting, but an exhausting diarrhœa. Tried to check it with astringents, terebinthinates, etc., without success. Was obliged to add a little opium, which accomplished the purpose and greatly revived him.

6th Day.—Diarrhœa worse again; checked it with pills containing large doses of nitrate of silver, and small doses of opium. Appetite improves.

7th Day.—Diarrhœa returned and was checked again by the same pills. Feels better; sits up in bed.

8th Day.—Improving. No medicine.

9th Day.—Improving, dressed, and lying on a sofa. Tincture of nux vomica as a tonic.

11th Day.—Doing finely; the nux vomica has produced a great increase of muscular tone, eats well. No diarrhœa. Stopped the medicine.

13th Day.—Improving. Walks about the house a little. No medicine.

15th Day.—Doing finely. Has no desire for opium, feels perfectly comfortable, though weak. The tongue, which the

first few days had a dense white fur, is now clean. Advised him on no account to take any opiate, nor to prop up his debility by substituting alcoholic drinks, lest he merely exchange one bad habit for another, but to recover the balance of his strength by the vigor of his own constitution. Discharged from treatment, apparently cured of his appetite.

ARTICLE X.

KERNEL OF CORN IN THE TRACHEA.—TRACHEOTOMY.—EXPULSION OF FOREIGN BODY.

By E. ANDREWS, M.D., Prof. of Surgery in Chicago Medical College.

Mr. S., of the town of M., brought me his child, which had, a few days previously, been playing with some corn-cobs, and had been seized with a sudden fit of strangling and coughing. The child was feverish, coughed constantly, had little sleep, and showed a distressed and anxious expression of countenance. The foreign body could be distinctly heard to rattle up and down the trachea with every inspiration and expiration. I administered ether to anæsthesia, and cut down upon the trachea above the isthmus of the thyroid body. After clearing the surface of the organ so as to have a distinct view. I inserted a scalpel and severed three or four rings of the trachea, making a perpendicular slit from the thyroid body to the cricoid cartilage. Drawing asunder this opening the next expiration drove the kernal of corn up into the orifice, where it hung an instant and was then sucked in again and disappeared. The second expiration brought it up again and expelled it with such force that it flew two feet from the patient. The incison was then closed with adhesive straps, and the patient made a good recovery.

ARTICLE XI.

PELVIC ABSCESS.

BY MORTON M. EATON, M.D., of Peoria, Ill.

This article is written more as a caution to the use of pessaries in the treatment of prolapsus uteri, than with any hope of offering anything new on the treatment of "Pelvic Abscess," which, I believe, is well established. I may remark, however, that such cases are not very desirable, as the investigation and treatment of the case must be very embarrassing to both physician and patient, especially if the patient is a fine lady in the first walks of life, and you are called to take charge of the case after a good physician has been dismissed.

I will now relate a case which has been of interest to me from its rarity, I never having had but one case of the kind before.

Was called to see Mrs. I., of this city, wife of a merchant living on —— st., September 5th, 1866. Found that Dr.——, a very fine physician, so called, had been attending and treating her; first for "falling of the womb," in which he had used various hard pessaries, afterwards had treated her for ulceration of the os uteri (the prolapsus not being cured), then again applying the pessaries; the whole time of his treatment having extended over a year or more, nearly ever since the birth of her only child, some 15 months since, had been dismissed, and I was requested to take charge of the case, which I hesitated to do, because I had great respect for the physician that had been employed over a year and dismissed. But assented after urgent solicitation by the patient and her mother, who had been a patient of mine six years since, while suffering from some female complaint. I consented to examine the case.

I found her plethoric, aged 24 years, the mother of one child; now confined to her bed, where she had already been for over two weeks, complaining of severe pain in the pelvis, and in the hypogastric region. Pulse 110, skin dry, tongue with a white coat; defecation produced severe pain, and the erect posture could not be endured; micturition painful and desire frequent;

abdomen tender. On attempting to make a digital examination per vaginum, I found all the parts so sensitive and so much inflamed and swollen I desisted, and contented myself with knowing that all the organs within the pelvis were highly inflamed, and that I had reason to fear the formation of a pelvic abscess. I ordered fomentations of hops over the external genetalia and hypogastric region, and gave opii. pulv. gr. ss., et hydrarg. chlo. mit. gr. j., every three hours.

Sept. 7. Discontinued the mercurial and continued the opiate, and on examination finding considerable swelling on one side of the anus, I changed the hops for a poultice of flax-seed meal, being now well satisfied an abscess had formed, and hoping to have it open externally in its most depending situation. But the swelling lessened the next two days under the application of the poultice, I thought possibly I would not have an abscess; but on making a digital examination per vaginum, which the subsiding of the inflammation permitted, I detected a large fluctuating tumor to the right side of the vagina and posteriorly to the same. I then used vaginal injections of warm water, hoping the abscess would open into the vagina, but I was disappointed; for on the next day, Sept. 12th, it opened into the rectum, and discharged profusely. I now gave the elix. of the valerianate of ammonia as an anodyne, and discontinued the opiate, and ordered an enema of warm water and soap twice a-day. Tried a compress in the vagina to press the sides of the abscess together and cause union, and prevent the accumulation of matter, but it could not be retained. The os uteri was very tender and very low in the pelvis. Applied an elastic abdominal supporter to the abdomen to press the bowels up, and take off the pressure of the bowels from the uterus, and used no treatment for about two weeks, except the supporter, the valerian to quiet the nerves, and gave potass iodid, 3 gr. doses, with syr. sarsaparilla three times a-day. At this time, Sept. 26th, she could sit up without suffering any bearing down pain, but on rising, a pouch was formed beside the rectum, and it being fluctuating, I was certain it contained matter, and feared fæcal matter besides. I accordingly opened the tumor with a sharp pointed bistoury,

and considerable pus escaped, but nothing of a fæcal character. I now washed out the cavity with soft tepid water, and injected solu. iodine:—Iodine gr. v., potass iodid. gr. xij, aqua ℥j, once a-day, enjoining rest and a farinaceous diet for a week; when I directed her to sit up, and she found she could do so by using a soft pillow to sit upon. She still wore the abdominal supporter, and declared herself feeling better than she had for a year. I gave her elix. bark et ferri protox in ℥j doses, and used the iodine 10 gr. to the ℥j of water once in two or three days. The discharge constantly grew less and less, until Nov. 2d, when it ceased; Nov. 10th, patient discharged cured. By the constant use of the abdominal supporter, the uterus had regained its natural position without any direct treatment, (so called); although I claim that the taking off of the weight of the abdominal viscera from the uterus is the most philosophical treatment in some cases, and I believe this was one. Nov. 20th, saw Mrs. I. at my office, who requested an examination of the uterus to know that those *ulcerations* were cured. Agreeable to her request, I examined her with a bladed speculum, and found the os uteri perfectly healthy, and all the parts, so far as I could learn, were healthy also.

I told her she was "all right," needed no treatment, but to wear the abdominal supporter. Jan. 1st, I learned from Mrs. I. that she was still perfectly well, and had experienced no pain or trouble of any kind for a long time.

Now this patient had not been recently confined, or exposed to those causes which ordinarily produce this complaint; it is true that authorities state that these abscesses sometimes form without any known cause. But, whatever may have been the cause, in this case I am certain she was treated by authority for the prolapsus, etc. But I do feel disposed to discourage that too common practice with some of finding ulceration and using caustics; and prolapsus and using pessaries and causing ulcerations, mayhap; and it may be proper to state here, (though I never said anything of the kind to the patient), that I think these things might produce abscess. I have cured some seven or eight cases of procidentia and prolapsus by the use of

the abdominal supporter alone, during the past year. It is safe. It is comfortable for the patient, and is liable to do no injury, that I am aware of; it certainly cannot produce "pelvic abscess."

One fact in this case was as favorable as remarkable, that no fæcal matter found its way into the abscess through the fistula in ano, which existed. In most cases of this kind, I believe it would be advisable, (if the patient would consent), to open the abscess through the vagina, which might prevent its pointing in the rectum, where usually it is very difficult to heal. This might also have prevented the necessity, which afterwards arose, of opening it externally.

ARTICLE XII.

To the Editor of the Chicago Medical Examiner:—

Sir:—I wish to call your attention, and through the pages of your excellent Journal, that also of the profession generally, to a little work lately issued from the press of J. B. Lippincott & Co., Philadelphia, and entitled "Infantile Paralysis, and its attendant Deformities."

The increasing frequency of this malady in this country, especially among the more active and intelligent portion of the community, and the meagreness of literature on this really important subject is, it would seem, a sufficient reason why every physician should welcome the appearance of this really practical, and, therefore, valuable little treatise. It is the production of Dr. Charles F. Taylor, of New York City, who is well known to the profession as an earnest and successful worker in the department of orthopædic surgery, and whose wide experience in the treatment of this class of cases has eminently qualified him for his task.

This monograph is characterized by the same originality of thought and sound common sense which have distinguished the previous literary efforts of this writer. The ideas therein pre-

sented are not to be looked upon as the idle speculations of the theorist, but may be safely accepted as facts which have been established upon the firm foundation of extensive and prolonged observation, and which may be verified by any physician in whose practice cases of infantile paralysis may occur.

After defining the term "Infantile Paralysis," and briefly glancing at its causes, the increasing frequency of its occurrence, its pathology and symptomatology, and mentioning some of the peculiar characteristics of this form of paralysis, the author passes on to the treatment, the consideration of which occupies the larger portion of the work. Considerable space is devoted to the examination of the mechanical causes of the various distortions, which are likely to, and, indeed, almost always do, occur during the progress of this malady, but which the writer clearly demonstrates to be entirely preventable.

The facts and arguments contained in the pages of this interesting and original little book are finally summed up in the following propositions, viz.:—

"1. Infantile paralysis is an arrest of vegetative development from some unknown cause.

"2. The characteristics of this form of paralysis suggest a peripheric blight rather than a loss of central nerve power.

"3. With diminished nutrition, temperature, and muscular power, there is also diminished muscular irritability; and there is no such thing as involuntary or reflex contraction in infantile paralysis.

"4. The shortening of certain muscles, is not a necessary consequence of infantile paralysis; and when it does occur, it is simply the adaptation of their length to the position they happen to be in.

"5. It is entirely accidental *which* muscles become shortened, whether flexors or extensors.

"6. Hence, deformities are not a necessary consequence of infantile paralysis, and when they are allowed to occur, the process of recovery is arrested.

"7. When deformities have already formed, they should be treated for an ultimate end, viz.: to bring the patient back to

the place from which he should not have been allowed to diverge, where the treatment for his *paralysis* should begin.

"8. Hence, tenotomy and mechanical appliances are only means to an end — the first steps of a course of treatment having in view the restoration of the muscular power.

"9. The most natural means for this purpose is the supply of local heat — involving increased local circulation — together with local exercise, corresponding with the position and ability of the part exercised.

"10. The element of *time* must also be taken into consideration."

The foregoing views are elucidated by the relation of some eight or ten cases, the histories of which are well given, and fully illustrate the points which the writer makes.

Not the least interesting feature of the work is to be found in the beautiful wood-cuts which adorn its pages, giving the reader a very clear idea of the distortions usually following the accession of this form of paralysis, and also completely illustrating that form of treatment which the author has found to be followed by the best results in these cases. E.

ARTICLE XIII.

REMARKS ON DIFFERENT SUBJECTS.

By N. HOLTON, M.D., Buda, Ill.

Read to the Members of the Military Tract Medical Association, Dec. 11, 1866.

After amputation by what is known as the flap operation, there is a redundancy of muscle in many cases. This I have often seen, both in civil and military surgery, and, because of this happening to me, I thought it might or had occurred in the experience of others. It does not succeed well if the integuments are drawn too tightly to cover the muscles in coaptating them, and, on this account, it becomes necessary to reämputate the muscles before the integuments can be properly adapted together so as to secure union by the first intention.

It occurred to me that, in most cases, by grasping the parts from which the flap was to be made, and retracting the skin, the difficulty above spoken of might be avoided.

In some cases of amputations by the flap method, the weight of the flaps has been thought to be an objection. This objection, perhaps, would not have as much weight in civil as military practice, but some in both.

In a case where I amputated below the knee, some weeks ago, the posterior flap being formed of the muscles of the calf of the leg, and this, being the principal flap, was quite heavy. If this flap is allowed to draw down its whole weight, it will be quite sure to destroy the vitality of the tissues where they are drawn across the tibia, and, consequently, result in sloughing. This was likely to be the result in the case above alluded to, but upon being carefully supported by a double inclined plane curved splint, the patient went on well again. They may be supported by cushions or pillows sufficiently for all practical purposes. In cases where there is considerable suppuration or erysipelatous tendency, I am in the habit of prescribing the muriated tincture of iron freely, and have never had patients affected with traumatic erysipelas or hospital gangrene where it was used as a prophylactic. I am indebted to Prof. E. ANDREWS, of the Chicago Medical College, for this idea.

Two Cases of Spina Bifida.

On June 29th, 1866, I was called to attend Mrs. M. in her first labor, and, after a little more than usually hard time, she was delivered of a large male child, affected with spina bifida. The unusually hard labor was caused, I thought, by the cord being around the body just above the pelvis. Instead of a tumor on the back, the tissues were gone considerably below the surrounding parts in the region of the two first lumbar vertebræ, and the posterior half of the vertebræ seemed to be gone. The parietal and frontal bones were less ossified than usual, leaving the parietal bones widely separated along the median line and extending into the frontal bone as far as a level of the superciliary ridge. Otherwise, the child was well developed. I thought that if the parts could be sufficiently supported, that

lacked development, or had lost their integrity, that the function of organization might go on and the cranial bones become ossified. To carry out this, I ordered compress and bandage, and, under this management, the ulcer on the spine became cov ered with a thin, parchment-like membrane, but, perhaps for want of thoroughness on the part of the parents, or from some other cause, the tumor grew and the contents of the cranium protruded more and more beyond the bones. About the 10th of October, there came a hole in the tumor of a very minute size, and on the 14th the child died.

There was nothing uncommon about the other case, and it did not live but a few weeks. It was accompanied by talipes, a very usual thing, I believe, in spina bifida. The mother of the first case was severely frightened by a horse kicking while she was in the buggy, three months before her accouchement, and the second fell on the ice in the early part of gestation, hurting her back severely. Whether these, or the fact of the cord being tightly drawn around the body of one child, had anything to do with these cases or not, I am not satisfied.

Prof. D. BRAINARD, of Rush Medical College, in the catalogus for 1847 and 1848, says, "Cure of Spina Bifida by Injections of Iodine." But, unfortunately for the practice, Dr. BRAINARD'S case soon after died; and as that was so long ago, and the practice not yet confirmed, I suppose it is a failure. Can these cases be cured? I confess I do not know.

In conversation with Dr. H. NANCE, of Kewanee, upon spina bifida, he said there was a case in his town, in the last cervical or first dorsal vertebra, of small size, in which the tumor was covered with a strong membrane; and that the child was doing well, could walk, and do anything that other children do.

A Case of Chronic Inflammation of the Urinary Organs.

This, I wish to include the kidneys, ureter, bladder, and urethra.

On the 11th of September, 1866, I was consulted by Mr. H., for what he called gravel, and, on inquiry, I elicited the following history:—He had been in the cattle business, in Missouri and Texas, through the season, almost constantly riding on

horseback, and had noticed a diminishing stream of urine, till, suddenly, he was unable to pass it at all, (this was two weeks before I saw him,) and compelled him to consult a physician, who relieved him with the catheter. When I first saw him, he could not pass urine, and he was again relieved by the use of the catheter, without difficulty; but the urine was largely mixed with blood, and some bloody mucus was entangled in the eyes of the catheter. At this time, there was very slight constitutional disturbance, and, after a careful examination, could find but little soreness or other enidence of organic disease. He had a good appetite, and felt pretty well generally. From these data, I gave the patient encouragement that he would recover his health in a short time.

He went on well until the 27th of the same month, when, suddenly, he was taken worse than ever—urine retained; some throbbing pain in region of prostate gland, and pain in the back; and a slight febrile movement generally, together with great nervousness.

These symptoms were relieved, and recurred again and again until the 20th of October, when I told him the full extent of the mischief, according to my view of the case, and that he could not be cured for at least three months, and, perhaps, a longer time. This was such poor consolation to him that he concluded to dispense with my services and seek aid elsewhere.

On the 11th of October, I was again summoned to see Mr. H. Found him unable to pass urine; laborious breathing; a black, dry tongue; pulse very frequent, small, and weak; entire loss of appetite; and unable to raise up in bed. At this time, I told him I would not take charge of the case unless he would allow counsel. This was readily assented to, and I sent for E. ANDREWS, M.D., of Chicago, who promptly responded, verified the diagnosis, and we agreed upon a course of treatment; but he gradually run down, and died on the 11th of November.

The reason I report this case is, that such cases are very infrequent in my practice, and the absence or obscurity of prominent symptoms, leading one to fully appreciate the importance of the case he has to deal with at first; the great dif-

ficulty in curing them when they are known; and the great lack of authority on the subject, within the reach of the country practitioner. The treatment, I understand to be astringent injections into the bladder, the best of which is nit. silver, in weak solution at first, and increased in strength as it can be tolerated; and the alkalies, buchu, pareira brava, tr. ferri chloridi, potassa brom., and other remedies of this class, by the mouth; rest, and care that the bowels are kept in a soluble condition.

May I express the wish, that some member of the profession, of large experience in this class of diseases, will write a monograph upon them.

Selections.

REPORT ON THE ETIOLOGICAL AND PATHOLOGICAL RELATIONS OF EPIDEMIC ERYSIPELAS, SPOTTED FEVER, AND DIPHTHERIA.

By N. S. DAVIS, M.D., Prof. of Principles and Practice of Medicine and of Clinical Medicine, in Chicago Medical College.

[From the Transactions of the American Medical Association.]

There is no department of medical study environed with greater difficulties than that of etiology. And especially is this true of the etiology of such diseases as are styled epidemic. They appear at uncertain, and often remote, intervals; in sections of country widely diverse in relation to geological formation, climate, season, etc.; attack large numbers in quick succession; and then disappear almost as rapidly as they were developed. The elements and agents, mental and physical, ponderable and imponderable, that are continuously surrounding and capable of impressing an influence upon every living human being, are so numerous and capable of such varied combinations that the problems presented for solution in the study of the causes of disease are among the most complex and obscure that can engage our attention. To solve these problems successfully

requires a complete record of the electrical, barometrical, thermometrical, hygrometrical, and ozonic conditions of the atmosphere for a series of years; the position and composition of the soil; the quality of the water; the individual and social habits of the people in relation to dress, diet, drinks, structure of houses, and habits of thought, in direct connection with a faithful account of the kind, amount, and specific character of all the diseases that may occur, whether they are epidemic or not.

At present, so far as relates to our country, these records do not exist, except to a very limited extent, and hence the data essential for determining with accuracy the causes of any particular epidemic do not exist. To commence systematically, the work of patient and faithful observation and record of facts in relation to all the topics just named, is one of the most important steps that can be taken for the further promotion of medical science. It is easy to assume the existence of some special and subtle poison as the cause of any given epidemic form of disease, and almost equally easy to enter upon extensive and plausible speculations in relation to its effects. While to demonstrate the existence or non-existence of such a poison in connection with the prevalence of any given disease may require the patient and persistent use of all the means furnished by modern science, through a series of years. It is not surprising, therefore, that our literature should be filled with an almost endless amount of speculation in regard to fever, cholera, and blood or zymotic poisons, until the intelligent student can hardly fail to be reminded of the concoctions, fermentations, and humors of a more remote period in the history of medical science. It may not be proper to claim that every specific morbific agent or poison should be positively identified and its properties determined before its existence can be logically admitted; because certain effects may be found to follow so uniformly the coëxistence of certain circumstances, that the development of an active agent, capable of producing certain appreciable effects, may be a fair and legitimate conclusion deduced from the premises. But if we would reduce the uncertainties of medical science, lessen the number of vague, intan-

gible and contradictory generalizations in medical literature, and substitute therefor real advancement in medical science and art, we must begin by patiently recording observed facts instead of *opinions*, and rigid inductive conclusions instead of mere *assumptions*. And if that section of the American Medical Association, having charge of the subjects of meteorology, medical topography, and epidemic diseases, could devise and carry into effect a successful plan for accomplishing this change so far as relates to those departments of medical science, it would constitute a more important step for the advancement of etiology and hygiene than has been taken during the past half century.

It is certain, however, that so long as mere opinions are allowed to supply the place of facts, and every writer or teacher is permitted to assume the existence of any specific poison that he can make subservient to his theories, our literature will continue to be filled with the most discordant opinions and the most vague and diverse theories. We shall continue, as heretofore, to amuse and bewilder ourselves with speculations as contrary to the uniformity of nature's laws, as they are to the acknowledged rules of inductive philosophy. One of the most prolific sources of error in our profession consists in partial or incomplete investigations, and the record of only a part of the facts relating to any given subject. This becomes speedily apparent to every one who institutes a serious inquiry after the cause or causes of any particular form of disease. He will find abundant announcements that the disease made its appearance in a given community at such a time; attacked such a number, chiefly of such a class; continued more or less severe for such a time; and disappeared. Not unfrequently these general statements are accompanied by equally general allusions to some one prominent sanitary, hygienic, or meteorological circumstance occurring coïncidently with the disease. But how few are the instances, in the whole range of our voluminous literature, in which the account of any single epidemic prevalence of disease is accompanied by so full a statement of the preceding and accompanying topographical, meteorological, and hygienic con-

ditions, including the special personal hygienie, physical and mental, of those attacked, that we can form a full and reliable idea of the influences that were brought to bear upon the properties and functions of living beings. And yet, without this completeness of facts, all etiological deductions must be more liable to be erroneous than truthful. It is probable that a careful review of the history of epidemic diseases would show them capable of being arranged etiologically into two classes. The first class embraces all such as arise directly from a specific virus or animal poison capable of being reproduced in the living animal body, and capable of being propagated in any climate, at any season of the year, and without regard to public or individual hygienic conditions. These, however much they may be influenced in their severity and fatality by collateral circumstances, are universally admitted to depend essentially upon a class of specific poisons, and hence are indisputably contagious.

The second class embraces such diseases as appear in an epidemic form only at irregular intervals; prevail only for a limited period of time; and at any given prevalence, appear incapable of propagation beyond certain geographical limits or sanitary influences. To this class belong influenza, spotted-fever, erysipelas, diphtheria, cholera, etc.

The fact that these diseases have appeared successively or at different times in almost every part of the world; at every season of the year; and among widely different classes of people, has caused their essential causes to be involved in great obscurity, and to become the theme of almost endless speculations and controversies. That they are not like endemics, dependent on causes originating in any particular soil or geological formation, is fully apparent from their occurence in localities so widely diverse in this respect.

The most popular theory is, that a part, at least, of the diseases enumerated in this class arise essentially from some infectious poison originating from some primary focus, and spreading from there, chiefly through the atmosphere, but capable of transportation, also, in the holds of ships, in boxes of goods,

etc., to the most distant parts of the civilized world. Hence, the common expressions applied to them are, they are coming, going, or traveling. While it is generally acknowledged that local sanitary conditions exert a controlling influence over the extent and severity of any one or all of this class of diseases, yet it is claimed that they are incapable of originating them. The popular idea, however, that a pestilential poison, too subtle for identification and scrutiny, can originate at some focal point, and from thence extend from place to place around the globe, will scarcely bear the test of a rigid investigation. All the laws of chemical or physical science indicate that for the production of any inorganic body, whether solid, fluid, or gaseous, the elements entering into its composition and the circumstances under which they unite, are uniform. Again, all that has yet been ascertained in regard to the development of vegetable fungi or sporules and animalculæ, indicates that each species of these minute organizations requires fixed local conditions for their development, and a very limited meteorological and geographical range in which they are capable of self-propagation.

To find a species of animalcule generated on the banks of the Ganges and propagating itself on the snows of Northern Russia, would be as much an anomaly in nature as to find the lion of tropical Africa flourishing in the arctic regions of North America. It is very generally alleged that each of the diseases in the class under consideration is identically the same wherever it occurs, and hence there must be an identity or specific character to the cause. If we grant this position, it simply necessitates the assumption of another, namely, that the production and propagation of an identical specific cause necessitates the presence of certain uniform materials and circumstances out of which that cause can be evolved. When we find a disease limited in its prevalence to certain geographical and geological boundaries, we naturally look to the soil as the essential source from which the cause of such disease is capable of being produced; because the composition and conditions of the soil are the uniform circumstances peculiar to the localities in question.

So too, when we find a disease identical in its character prevailing on many different geological formations, in various climates, and at different seasons of the year, the same rules of induction would require us to look for the origin of its cause in some materials and circumstances that are common to all the localities in which the disease itself prevails. And if we find man himself and the conditions of social life the only conditions uniformly present, logically we must look to these as furnishing both the materials and the conditions for evolving the immediate cause of the disease. There is no reason why diseases of a specific character and epidemic prevalence may not be engendered by disturbance of vital properties either with or without retention of certain excrementitious materials, as well as by the introduction of special poisons or miasms from without. Indeed, there are so many points of striking contrast between the first class of epidemics known to arise directly from the introduction of an animal poison capable of reproduction and propagation in the living body, and those constituting the second class, as to afford strong evidence of the entire dissimilarity of their causes.

Each individual disease of the first class has its definite period of incubation after the reception of the poison; an equally definite period of irritative fever before the local inflammations or eruptions are established; with an almost uniform period of progress, maturity, and decline of such local manifestations, thus making each case a fixed order of events, each occupying a self-limited time, and always accompanied by the evolution or reproduction of more or less of the same specific poison that had induced the disease.

It is hardly necessary to add. that no such order of events, definite as to time and duration, has been observed in influenza, cholera, diphtheria, erysipelas, or spotted-fever; and certainly no evidence of any uniform evolution of a specific poison during their progress. If, under some circumstances, the secretions and emanations from the bodies of patients sick with any one of these diseases, have appeared to be capable of communicating the disease directly to others, they have constituted rare exceptions to the general rule.

All the diseases of the first class are self-protective, except in very rare instances, occurring only once in the same individual. While the reverse is true of all those belonging to the second class.

Again, the diseases of the first class never *relapse*. Those of the second often.

There is still another point of difference having an important bearing upon the etiology of the diseases under consideration. It is, that all the diseases of the second class have their analogous or typical forms, among the ordinary sporadic diseases of each returning season. Thus, influenza has its type in the severer cases of coryza or acute catarrh; cholera, in the cholera-morbus of every returning summer; diphtheria, in follicular and erythematic inflammations of the fauces; and erysipelas, in the sporadic and traumatic cases of common occurrence.

Inasmuch as all these diseases in their sporadic forms or types are everywhere acknowledged to arise from strictly local meteorological and sanitary conditions, and equally conceded that in their epidemic forms they are greatly influenced both in numerical prevalence and fatality, by the same causes, would it not be more philosophical as well as more in consonance with observed facts, to attribute the epidemic form of any one of them to a simple exaggeration or modification of the same causes that give rise to sporadic cases, without calling to our aid imaginary poisons, and assuming for them powers of diffusion contrary to all the known laws of organic or inorganic matter.

These general observations have been pursued much farther than was originally intended; but they seemed necessary as an introduction to the views I wished to present in relation to the special causes of erysipelas, spotted-fever or cerebro-spinal meningitis, and diphtheria. With the exception of influenza and cholera, no diseases have prevailed more extensively as epidemics than the three just named. They are almost universally regarded by the profession as blood diseases, or, in other words, as dependent upon primary morbid conditions of the blood, inducing secondary local inflammations in various parts

of the body. A careful study of the phenomena and results of these diseases, has led me to doubt whether the morbid conditions of the blood are really primary and dependent on the introduction into it of some specific poisons from without, or whether they are the effects of a prior disturbance or perversion of those vital affinities by which the primary steps in the processes of disintegration and secretion are performed, thereby leading either to the evolution of some morbid product to be returned into the blood, or the failure to evolve some natural product which by its absence would no less certainly leave that fluid in a morbid condition. That the blood presents an unnatural or diseased condition while the system is affected by either of the diseases under consideration none will deny. But whether such change in the blood constitutes the primary or essential pathological condition on which all the subsequent phenomena and results of the disease depend, or are only a result of prior changes in the properties and functions of the organized structures is a question of more than merely speculative importance. Ever since the prominence given to pathological anatomy by the French school of which Louis, Chomel, Andral, etc., were such noble ornaments, there has been a manifest tendency to confound morbid anatomy or the effects of disease with true pathology. The investigations necessary to enable me to give a positive answer to the questions just stated, have not yet been completed. But thus far, they have led me to believe that the essential causes of erysipelas are such as are capable of directly depressing and, to some extent, perverting the elementary vital affinities of the tissues, in such a direction as to disturb the processes of disintegration and to diminish the excretion of alkaline salts. This induces, speedily, an excessively alkaline condition of the blood coïncident with the accumulation of the products of a disturbed tissue metamorphosis or disintegration. The circumstances capable of producing these primary pathological changes are various, but chiefly involve alterations in the electrical and ozonic conditions of the atmosphere, often rendered more efficient by an excess of carbonic acid gas and aqueous vapor. Every practi-

cal surgeon is familiar with the fact, that if he places an undue number of wounded patients in a confined atmosphere, their wounds speedily assume an unhealthy condition, leading directly to erysipelas or gangrene; while if the same patients are left in the open air, sheltered only by tents, no such effects follow. Now it can readily be demonstrated that such confinement of the air with an accumulation of exhaled carbonic acid gas and aqueous vapor is capable of changing its ozonic and electrical conditions, even in a few hours. It is also generally conceded that these atmospheric constituents are capable of undergoing sudden and important changes over extensive districts of country, regardless of geological formations or parallels of latitude; thus affording an adequate explanation of the occurrence of the disease in localities so various, and with such variable degrees of severity. This view of the essential pathology and causation of erysipelas is corroborated by the well-known fact that the habitual use of drinks which, like alcohol, retard the natural tissue changes, decidedly predispose to attacks of erysipelas or, in other words, favor the development of the erysipelatous diathesis.

The conclusion at which I have arrived in regard to the disease promiscuously styled "spotted fever" and "cerebro-spinal meningitis," is, that as reported in our literature, no less than three or four distinct diseases have been confounded together.

The first class of cases, embracing those most extensively prevalent as well-marked epidemics, and tending most rapidly to fatal results, were no more nor less than true erysipelas, in which the cerebro-spinal nervous structures with their enveloping membranes, constituted the seat of the local inflammatory developments instead of the fauces or cutaneous surfaces. This view is sustained by the immediate preceding or coïncident prevalence of well-marked cutaneous erysipelas, which has been noticed by most of the later writers on this subject; by the rapid progress of the disease; by the almost uniform aplastic character of the local exudations and changes; and by the fact of cases in which manifest erysipelas of the fauces and face has been accompanied by all the pathognomonic symptoms of

fatal cerebro-spinal meningitis. One case of this kind occurred under my own observation only a few months since. In a recent paper on the cerebro-spinal meningitis that prevailed so severely and extensively in the middle and western states between 1844 and 1848, read to the Illinois State Medical Society, Dr. J. Adams Allen, formerly in the medical department of University of Michigan, says: "Erysipelas is the most frequent and dangerous of complications. It is easily kindled upon the slightest abrasion of the surface, and often, without such a nidus, attacks the face and neck, extending to the scalp, or more rarely seizing the extremities."

Dr. J. S. Jewell, of the Chicago Medical College, in a letter presented to the same society, speaks of witnessing an epidemic both of "spotted fever or cerebro-spinal meningitis" and of "erysipelas" in the same localities in the southern part of Illinois during the years 1862–3. Close examination of another class of cases will show them to be either modified forms of typhus or of scarlatina. While still another class, much fewer in number, and generally occurring sporadically, are simple acute inflammations of the membranes enveloping the cerebro-spinal axis and base of the brain.

In regard to diphtheria, I will only add to the observations already made, the opinion that its causative influences are analagous to, though not identical with, those of erysipelas. That while they induce such modifications of vital affinity in the tissues generally as to greatly lessen their tonicity, and such disturbances of the atomic or cell changes of tissue metamorphosis as to cause a morbid condition of the effete elements of the blood, they also produce a well marked tendency to aplastic albuminous exudations, as shown by the rapid formation of aplastic deposits on all inflamed or abraded surfaces and the elimination of albumen through the kidneys. These changes in the properties of the elementary structures and in the nitrogenous elements of the blood would necessarily develope great debility with so much spanemia or blood impoverishment, as to afford a rational explanation of such well-known and peculiar sequelæ of this disease, as unusual muscular debility, protract-

ed convalescence, and frequent paralysis, either partial or complete. I have thus compressed, into less than a dozen pages of manuscript, an outline of those views of the etiology and pathology of erysipelas, spotted fever, and diphtheria which would require the compass of a volume to illustrate the facts, which might be adduced for the purpose of testing their claim to credibility. My sole object in presenting them, is to elicit discussion and excite more rigid and extensive investigations.

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Dr. Post again introduced Dr. Quinby's patient for the purpose of showing the progress of the case. He remarked that there could here be no arrest to the growth of the leg, since no portion of the tibia or fibula had been removed, and that, as a result of this operation, the patient was not prevented from wearing a boot. The patient then exhibited his control over his movements by walking in different gaits, jumping, etc.

Continuation of the Discussion on Chronic Metritis.

Dr. Kammerer remarked that the discussion of chronic metritis had gone back to the very premises—to wit: whether there was such a disease as chronic metritis or not. He thought that the cause of this variance lay in the fact that pathological anatomy had outstripped clinical observation. He would ask, in considering this topic, whether or not this derangement in nutrition was marked by exudation, a stagnation of the circulation, etc. Hyperæmia was no symptom, since the sexual organs suffered a recurrence of that condition every four weeks. Irritation should certainly not be confounded with inflammation; and regarding Virchow's explanation of the phenomena of inflammation as decidely the best, he found none willing to claim that the conditions as laid down by that eminent authority were here present. That they were met with in perimetritis with pelvic peritonitis, and in endometritis, he had no doubt; but as far as the body was concerned, he should be more reserved in his opinion. French authors have no doubts of the existence of metritis. Prof. Klob, of Vienna, whose work, published in 1863, has not yet been translated, who made 1000 autopsies in the General Hospitals, failed to find a single case of genuine metritis. All the changes pointed only to hy-

peræmia. Entertaining these views, backed as they were by authority so eminent, he could only regard the term chronic metritis, as a misnomer. The subjective symptoms of chronic metritis, then, if we may allow the term as a matter of convenience, so far as our clinical observation goes, are derangements of the functions, amenorrhœa, dysmenorrhœa, sterility, etc, while the objective are an enlarged organ, with ulcerations, abrasions, and discolorations. We may very readly make out the size by what is technically known as the double touch, *i. e.* by the use of the sound simultaneously with palpation of the abdomen. The cavity may be found deeper and wider, the organ itself enlarged, which latter is, after all, the only pathognomonic symptom. He would admit, however, that we must not expect to be invariably fortunate in making out the enlagement of the organ, since the thickness of the tegumentary coverings has quite frequently foiled us. He also did not regard a tender as neccessarily an inflamed uterus—for a certain amount of hyperæsthesia might be present, without looking towards any very grave disease, since pain of any account would indicate peritonitis or ovaritis. The pathological anatomy of the disease will be found to reveal a morbid condition rather than a morbid process. We may find the muscular fibres hypertrophied and the connective tissue increased in quantity, but even these may constitute merely a quantitative anomaly, and that, too, within the limits of health. The chronic induration resulting from engorgement was due to an increase of the connective tissue at the expense of the muscular fibres; the organ may have an anæmic hue, and may creak under the knife. All this was not inflammation, but merely the result of long-continued congestion or hyperæmia.

He might refer to the two forms of hyperæmia as proper to be borne in mind, while considering the case now in dispute. The arterial form is well typified in menstruation and puerperal fever; while venous congestion is exemplified in those instances where obstacles are offered to the reflux of blood, as in displacements, flexions, adhesions, and the embedment of fibrous tumors within the walls. He conceived that the diverse opinions formed regarding this condition of things might be explained by the fact that not enough stress had been laid upon such complications as peritonitis or its sequelæ of adhesions, latero-versions by the contractions of ligaments, etc. Chronic peritonitis was likewise a frequent complication.

The best remedies within our grasp were antiphlogistics and frequent tepid baths. For the accompanying endometritis,

the very first condition was to keep the orifice well dilated for the escape of the secretions, by which the mucous membranes are relieved, and the general condition rendered more comfortable. Thorough dilatation might be effected through the well known agency of bougies and sea-tangle (*laminaria digitata*) or sponge tents. He desired to call attention to two local remedies, which had not yet come into general use. The first of these was *pyroligneous acid*, first introduced to the profession by Dr. Meyer, of Berlin, and which was held in high esteem, especially by German practitioners. He would assure those disposed to give this agent a trial, that there was no danger in its use, provided the article were pure. The second remedy was *carbolic acid* in concentrated solution, which might be introduced into the cavity by a brush. No bad results have been known to occur; the only obstacle to its application he knew of, was the presence of acute peritoneal irritation or sub-acute inflammation.

When displacements existed, our only resort was, of course, to adjust them if possible; but all cases of slight hypertrophy he would let alone, unless, perhaps, when the cervix assumed the form of prolapse, he might attack the neck by surgical means, such as by the écraseur or by the electro-caustic method.

When the hyperæmia was due to a general cause,—to cardiac complications or tuberculosis, but little mitigation of the patient's sufferings need be expected. After all, the only real cure, in his opinion, was effected when senile atrophy ended the woman's parturient history.

Dr. Peaslee said: He had hoped to have listened instead of speaking to-night; but some of the topics which had been discussed, he thought required further elucidation.

He thought that the view he had taken at the previous meeting, of the subject under consideration, was both logical and scientific, and one which could not be successfully opposed. He had without argument admitted the existence of parenchymatous inflammation of the uterus; though he was aware that Bernutz and others doubt if acute parenchymatous inflammation of the unimpregnated uterus ever occurs; and Klob, as Dr. Kammerer has told us, admits that he has never, in all his *post mortem* examinations, been able to demonstrate parenchymatous metritis in any form. Neither had he (Dr. P.) discussed the nature of inflammation, since that would have led him too far from his main object. Dr. Kammerer has stated that its most important characteristic is an exudation of the plasma of the blood between the histological elements of the part affected, as

all must admit in the present state of general pathology. Dr. P. had simply specified the symptoms recognised by all writers as indicative of inflammation of the parenchyma of the uterus, and admitting its existence where they do exist, he had refused to admit it where they do not. But he had shown that these symptoms do not exist, and have not existed at all, in a large majority of all the cases generally included under the term chronic parenchymatous metritis; while they do appear, and then disappear again to recur, in the minority of these cases. He therefore decided that the majority are not cases of metritis at all, while metritis recurred from time to time in the minority of the cases. On further examination he found the former presented the symptoms of chronic congestion merely, while the latter presented the same state with attacks of metritis supervening upon it.

This view had been somewhat earnestly criticised at the last meeting, as he (Dr. P.) hoped it might, since it had been held by him the last fifteen years, and finds constant confirmation in his practice, and he regretted that Dr. Barker could not be present this evening, since he might wish to reply to criticisms which he (Dr. P.) should in turn feel obliged to make.

Alluding to Dr. Barker's division of the cases of chronic metritis into three classes, Dr. P. said he (Dr. B.) had committed the too common error of confounding the effects, or sequelæ, of inflammation with inflammation itself. Dr. Churchill has adopted the same classification (and added two or three classes more); but he so blends acute and chronic metritis in his account of parenchymatous inflammation of the uterus, that one can get no clear idea of the difference between them on the one hand, or between them and induration, or softening, or suppuration on the other. Dr. P. would speak only of the two first classes of cases recognised by Dr. Barker, viz.: (1) chronic metritis complicated with indurations; and (2) the same complicated with softening.

Twenty-five years ago (said Dr. P.), it was an axiom in general pathology that chronic inflammation produces induration or hardening, while acute inflammation produces softening. This statement, however, does not present the facts as they really exist, but merely a simple view of them. In the first place, we must remember that the characteristic element of the inflammatory process is an exudation of the plasma of the blood from the capillary vessels of the part affected into the intercapillary spaces, and among its histological elements. As this is, of course, itself softer than the tissue proper, the whole mass

of tissues and plasma thus become softer than the tissues above in their natural state. An immediate effect, then, of inflammation in all cases (acute or chronic) is softening. But this exudation among the tissues may subsequently be disposed of in either of three entirely distinct ways. It may (1) be entirely and promptly reabsorbed, in which case it is customary to say that the inflammation terminates in resolution; or (2) it may become organized, and thus be permanently blended with the tissues of the part, and in this case the whole mass of tissue and neoplasma together, will (in the case of a soft solid) be after a time harder than before, and we say *induration* has taken place; or (3) the exuded plasma may degenerate into pus, and be thrown out from the part, when we say *suppuration* has ensued. The accurate statement of the facts is, therefore, this: inflammation directly produces softening, as the result of its exudation of the blood plasma into the part; and if hardening ensues after a time in a part where inflammation had existed, it is due to an organization of the same plasma which at first rendered the same part softer. It does not depend on the character of the inflammation, whether acute or chronic, but merely on the fact of the organization of the plasma, instead of its reabsorption or its degeneration; and this organization requires a certain amount of time. In other words, it is a *chronic result* of an inflammation, though the latter may have been itself acute or chronic. Metritis, therefore, complicated with softening, is simply actue metritis; for the softening is one of its essential and never absent results. Of course we do not here consider fatty degeneration and other forms of softening of the uterine tissue, which have no known or suspected relation to the inflammatory process. And chronic metritis, complicated with induration, is simply hardening of the uterus from the organization of the product of a previous inflammation. Congestion is, however, very liable to continue for a longer or shorter time after the inflammatory process subsides, and hence we often find chronic congestion coëxisting with induration. Besides, we may have recurrent inflammations in an indurated uterus; but, if so, this inflammation needs no peculiar treatment on account of the induration; and the latter still remains to be treated after the inflammation subsides. The distinction of the two classes referred to, therefore, of complications with chronic parenchymatous metritis, are pathologically incorrect, and besides have no therapeutical value. On the other hand, we remember that induration is continually found without any inflammation or even congestion of the part; though sub-involution after parturtion is sometimes mistaken for it.

Another error which Dr. P. had to specify was the confounding of engorgement with inflammation in the case of any organ. Some, however, go further than this, and use the terms congestion, engorgement, and inflammation, as if they mean precisely the same thing. When we study the phenomena of inflammation artifically produced in the web of the frog's foot, or the wing of the bat, we find that the stimulant which we apply produces, 1st, an increased flow of blood to, and through, the capillaries of the part (local determination of blood). 2d, a loss of power of the vessels from over distension, and, therefore, a diminished flow of blood through them (congestion); and 3d, an entire stagnation of the blood in the capillaries, and the exudation of its plasma into the inter-capillary spaces, while the corpuscles remain in the vessels (inflammation.) On the other hand, when recovery takes place, the inflammation first fades into congestion, and this into the healthy condition of the part. The difference, therefore, between inflammation and congestion is distinctly marked, and always demonstrable under the microscope. But the term engorgement simply means that the part is choked up with an extra amount of fluid, either in the vessels or between them, or both. Hence it may in one case mean mere congestion, and in another, the state produced by inflammation (the vessels distended with blood corpuscles and the plasma exuded from the vessels). But it is never properly applied to the inflammatory process itself. It has, therefore, no scientific value; and the sooner it is entirely dropped from the nomenclature of pathology, the better.

Another point to which Dr. P. desired to call attention is the statement, which had of late become quite fashionable, that the body and the cervix of the uterus are distinct organs, which he characterized as entirely incorrect, whether we consider their relations in a developemntal, a histiological, an anatomical, a physiological, a pathological, or a therapeutical point of view.

1st. *Developmentally*, the cervix and the body are one and the same organ. The internal female genital organs are developed from the ovaries; each developing one-half of the uterus and one Fallopian tube. The body and cervix are continuous in structure from the first. At birth, however, the cervix is nearly twice as large as the body, constituting about two-thirds of the whole organ; and the uterus has the form of a cone, with its apex at the fundus.

2d. *Histologically*, the body and the cervix uteri are the same also. There are the same tissues in both, and both are supplied with vessels and nerves from the same sources. The ar-

rangment of the mucous lining of the cervix is different from that of the body; but the tissue is the same. And besides the mucous membrane, the nerves, bloodvessels, and lymphatics, and the pertioneal investment, there is nothing but collagenous (or connective) tissue and non-striated fibre in either.

Dr. Barker has spoken of a similarity of the uterus, in a histological point of view, to cartilage and bone. But cartilage has neither bloodvessels, lymphatics, nerves, nor muscular fibre, nor any other of the tissues found in the uterus. It has only two histological elements, cartilage cells and a hyaline substance, in which they are imbedded. Bone, on the other hand, has no muscular fibres or collagenous tissue like the uterus; but owes its peculiarities to its phosphate of lime and other salts combined with osteine. Histologically, therefore, the comparison of the uterus with cartilage and bone, is incorrect.

3d. *Anatomically* considered, the cervix and the body are but parts of the same organ. It has been stated that the muscular fibres of the body of the uterus are nowhere prolonged into the neck except posteriorly. If this were really so, the cervix would be torn from the body at their junction in front in case of parturition with rigidity of the cervix; and the child would be expelled into the peritonealy cavity through the rupturé. But what are the anatomical facts? Simply that the longitudinal fibres are prolonged from the body of the uterus into the cervix both anteriorly and posteriorly. Dr. P. published this statement in his work on histology, ten years ago; and he who dissects the uterus of a woman who dies within a week or two after parturition, can easily verify it. As to the arrangement of muscular fibres, there is a striking analogy between the uterine body and neck, and the body and neck of the bladder; and neither of these organs could expel its contents with the precise arrangement that obtains.

4th. *Physiologically*, a distinction is to be made between the body and the neck of the uterus; but even here they are to be regarded as one and the same organ. The function of menstruation is performed by the body, and not at all by the cervix, but the Fallopian tubes also participate with the body in that function. Gestation also is accomplished by the body, and very slightly, if at all, by the cervix (for he would not here discuss the question of the obliteration of the cervix by merging into the body in the latter months of pregnancy). The mucus secreted by the cervix differs from that of the body also. But the great culminating function of the body of the uterus is *par-*

turition, and in this the cervix acts an important part—as a portion of the same organ. Viewed in respect to this function, the cervix is merely the sphincter muscle of the body, as at the end of the rectum we find the sphincter muscle of that canal. The office of both is also the same, viz., to prevent the premature evacuation of the canal which it closes. But a sphincter can never open itself; it must be forced open, as is the case with the sphincter ani, or pulled and forced at the same time, as is the case with the cervix uteri and the neck of the bladder. And the continuation of the longitudinal fibres of the body of the uterus into the cervix, both anteriorly and posteriorly, as has been explained, is the only arrangement which could accomplish this double effect on the cervix which has just been mentioned. The cervix and the body of the uterus are, then, not distinct organs.

5th. Nor do we discover the asserted independence of the cervix uteri and the body, when we consider their *pathological* relations. Endocervicitis may, and often does, exist without extending into the uterine cavity, and becoming endometritis also; and cervicitis occurs independently of metritis proper; though both metritis and endometritis far less frequently occur uncomplicated with cervicitis and endocervicitis. Still, we know that an irritation in the cervical canal by a sponge-tent frequently produces endometritis as well as a miscarriage in case of pregnancy; and that the common cause of metritis proper in newly-married woman is contusion of the cervix. In other words, certain pathological states of the cervix often extend their influence directly to the body of the uterus, as we might expect; and others extend more frequently in the reverse direction: though both these facts are inconsistent with the idea that these parts are distinct organs.

6th. Finally, the cervix and the body of the uterus are not distinct organs in a *therapeutical* point of view; and this is a fact of the highest practical importance. If we cannot affect the body of the womb, as has been asserted, by any application to the cervix, of course all local treatment must be abandoned as useless; since applications to any other part must, by parity of reasoning, be even less efficient still. If the abstraction of blood from the cervix does not modify the circulation of the body of the uterus, when both are supplied by vessels from the same source, he could not imagine how we could affect the uterine circulation by leeching or scarification at any other point. But what are the facts? He had noticed that scarifications, often repeated, of the cervix, in the cases under discus-

sion, produce immediate relief in most cases, and which is frequently permanent; and Dr. Barker also has admitted the relief, though he believes it is merely temporary. But any degree of relief shows that the circulation of the body of the uterus is thus modified. Besides, Dr. Barker places his main confidence, so far as local treatment is concerned, in vaginal injections of warm water—a practice quite irrational if the cervix and body are independent organs; but which also was occasionally resorted to by himself, on the principle that the water thus applied to the cervix extends its effects to the body also.

But he (Dr. P.) would not extend his remarks further on the question of the dependence of these two portions of the uterus. Dr. Kammerer had remarked that he knew of no treatment which would remove the induration of the uterus before mentioned. Dr. P. regretted that he could not shed much light on that point; but he thought we must trust mainly to the bichloride of mercury, bromide of potassium, electro-magnetism, and especially to *time*.

The meeting then adjourned.

THE MEDICAL USE OF ELECTRICITY.

By G. M. BEARD, M.D. and A. D. ROCKWELL, M.D., New York.

The history of the medical employment of electricity has been marked by many and peculiar disappointments.

It was very natural to infer that an agent at once so mighty and mysterious in its phenomena, should have a great power for good or evil over the human constitution. Hence we find, that after the researches of Galvani had abundantly established the doctrine of the existence of animal electricity, very many enthusiastic observers set themselves to the task of demonstrating the medicinal virtues of this subtle fluid. Their experiments were attended with a measure of success. Aldini, in 1795; Hufeland, in 1798; Alibert, in 1817; and Dr. Mansford, in 1818, clearly establish the fact of the remedial powers of static electricity in certain forms of paralysis and epilepsy. The discovery of the induction current by the great Faraday, in 1831, gave a new impetus to the scientific investigations in this department. Matteucci, Du Bois Reymond, Golding Bird, Duchenne, Remak, and more recently, Brown-Séquard, Rosenthal, Meyer, Benedict, and Ziemssen, have all labored diligently in

the field of physiological and medical electricity, and have brought many and valuable sheaves with them.

By these investigators, the remedial, as well as the physiological, effects of electrization have been repeatedly demonstrated. They have proved that, not only in paralysis and epilepsy, but also in cases of debility and impaired nerve energy, electricity is an agent of vast and wondrous power. And yet, outside of the ranks of these original explorers, there are comparatively few in the profession who have given the subject sufficient heed even to inform themselves as to the diseases for which galvanization or faradization are specially applicable. This apathy of the medical world with regard to the success of experiments that promise so much and so surely for the department of therapeutics, is to be accounted for by a variety of reasons. First of all, electricity, in the various methods in which it is employed, has not fulfilled the general expectation. It has been found to fail utterly in many cases where theoretically it should have achieved the most absolute success; and hence many, disappointed and perhaps disheartened, have illogically concluded that their expectations were not well grounded.

Again, in our country at least, the practical application of this agent has fallen into the hands of uneducated and unscrupulous practitioners, who know little of the human system, or of the science of medicine, and still less of the agent they employ. Emipirics and charlatans, versed in no art except that of robbing the unfortunate, have thus far had the field mostly to themselves, and have improved their advantage by filling their own pockets without adding an iota to the world's stock of experience. Whatever valuable truths they may have stumbled upon by their abundant observations are known only to themselves, and are regarded by them merely as tricks of trade, and in the very nature of things must die with them. Electricity appears to be travelling slowly in the footsteps of all our permanent specialities. Twenty years ago, the treatment of the diseases of women was almost exclusively in the hands of ignorant and unprincipled outsiders; gynecology is now one of the most honored and useful departments of science. It is but fifteen years since oculists were linked with contempt in the speech of all who desired to be regarded as authority in medical etiquette; to call oneself a specialist for the eye was a plea of guilty to the grossest ignorance and fraud.

Ten years ago, the diseased throats and ears of the country were at the mercy of a crowd of the most rapacious sharpers that ever amassed fortunes out of human suffering and credu-

lity; ten years hence, laryngoscopists and aurists will stand on the same platform with oculists and gynecologists.

It is the duty, and it should be the delight, of scientific men, to wrest the medical employment of electricity from the hands of these selfish harpies, and accord to it that honor to which its merits justly entitle it. At the present time medical practitioners of all grades are not unwilling to recommend electricity in certain cases of paralysis, that will neither yield to internal medication nor get well in spite of it; but they usually allow their patients to use some kind of apparatus at home, or else content themselves with two or three imperfect applications under their own eyes. The results in such cases are almost always unsatisfactory. It could not, indeed, be otherwise. In this way, more than in any other, electricity has been wounded in the homes of its friends. To one case that is cured or relieved by such slipshod procedures, ten are either made worse, or else so little benefitted that they cast their batteries aside, and ever afterwards declare that electricity is a humbug. The truth is, that there is no more sense or reason in allowing patients to make their own applications of the electric current, than there would be in intrusting them with the responsibility of cutting their own veins, or operating on their own ears and eyes. In three important particulars we are apt to mistake the employment of electricity. 1. By neglecting to make just discrimination in regard to the types and phases of disease that are found to yield most readily and surely to this method of treatment. 2. By intrusting the details of the applications to the patients themselves, or some of their non-professional attendants. 3. By not making the applications with sufficient thoroughness and persistence.

Our attention having been called to this subject for some time past, we have found that the range of diseases amenable to this form of treatment is much wider than we had ever supposed. We have found that faradization, or the use of the secondary current, is especially indicated in cases of indigestion in all its myriad shapes; in nervous derangements, when they take the form of chorea, epilepsy, neuralgia, or hypochondriasis; and in general debility and anæmia, dependent on any cause except pulmonary tuberculosis. In our experiments thus far we have made use of Smee's battery, as manufactured by Kidder, of this city, and we have employed in most cases only the secondary current. It is very far from being a fixed fact of medical science that the primary current is capable of succeeding when the secondary fails; but, if it be used at all, it is nec-

essary to obtain the combined strength of a number of elements. The primary current of the battery we use is too weak to be of any special service in ordinary cases, and we have never secured from it any results that could not have been obtained just as surely, and far more rapidly, by faradization. Stöhrer's large battery, consisting of twenty-four or thirty-two elements, is a most excellent instrument, and is much employed by Ziemssen, Rosenthal, and other German investigators.

Three different methods of applying electricity have been recommended by Duchenne; by solid metallic electrodes, metallic brushes, and the hand.

Of these methods we must prefer the latter.

No instrument that human skill shall devise can ever equal the hand in flexibility and power of adaption. If the feet of the patient be placed on a sheet of copper to which the negative pole is attached, the operator, holding the positive pole in one hand, can with the other readily manipulate the parts desired to be affected, and by increasing or diminishing his grasp of the sponge, can modify the strength of the application without disturbing his apparatus.

Used in this way, the current must pass through the body of the operator. The first essays of those who may employ electricity through their own persons, must always be unsatisfactory. They will find that they can bear only a very feeble current, or at least one not strong enough to effect any but the weakest patients, or the most sensitive localities. But practice is everything here, as in the use of all other appliances of medicine. According to our observation and experience, the system appears to become accustomed to the powerful electric stream, just as it becomes accustomed to the use of tobacco, alcohol, opium, hasheesh, or coca; with this difference, that its effects are, if anything, positively beneficial.

Dr. Garratt, of Boston, (whose abundant opportunities for observation and varied practical experience in the medical employment of electricity, entitle his views to more consideration than those who have attempted to wade through the verbose and mystic rhetoric of his recent work will be willing to accord to him), advises "that the operator use the same hand that holds the electrode, so as to prevent the passage of so high an induction current through his own person, which is thus to himself highly injurious and unsafe to be long continued or often repeated."

It would be very natural to infer that an agent so potent in

the cure of disease must be prejudicial to health when used in large excess, for such is found to be the case with nearly all the prominent articles of the materia medica.

It is on this probability that Dr. Garratt bases his words of warning; but the facts are against him. Obstinate experience will not wheel into line at the command of any scientific theory, however consistent or plausible.

We have now been employing faradization through our own persons for some time, and the effects have thus far been either negative or beneficial.

We have both enjoyed our average health since we began to use the agent, and both have observed a marked development of the strength and size of the muscles of the arm. Wm. Miller, of this city, a man of no special medical education, but of the utmost reliability, and thoroughly experienced in the practical application of the faradaic current, informs us that for the past thirty-five years he has allowed the stream to pass through his own body on an average of about five hours each day. By mathematicial computation, then, it appears that a powerful induced current of electricity has been passing through him for about seven years of his life. Up to the present time, his general health has been excellent, has, indeed, improved under the mighty stimulus, and he has suffered from no disease that can even be remotely ascribed to electricity. It is safe to say that no parallel instance can be found in either hemisphere.

Our experience thus far seems to have taught us three important facts:—

1. Faradization is a *tonic* of vast and varied powers, and it is chiefly through its tonic effects that it so rapidly and so surely benefits so many chronic asthenic diseases. It almost uniformly relieves chorea, dyspepsia, jaundice, constipation, neuralgia, and chronic rheumatism; also, anæmia, when dependent on functional nervous derangement; and when faithfully and persistenly employed, it not unfrequently works a permanent cure. Whether these tonic effects of faradization are the result of its mechanical action, or of some subtile nerve power that it mysteriously imparts to the system, or of both combined, we are of course unable to say. Nor is the question a vital one, however interesting it may be to the inquiring spirit of science.

The operators of the Atlantic cable inform us that enough electricity can be generated in a vessel no larger than a gun cap, to send a message from continent to continent, and they

are ready to confess that they know as little of the nature of this agent as they did when Morse first planned the line to Washington.

Precisely the same principle holds good in the medical employment of electricity. Our ignorance of the rationale of its workings is no bar to our progress in the knowledge of its effects.

2. To gain satisfactory results from faradization in long standing cases of debility from whatever cause, the applications must be properly made and thoroughly persisted in. After the pendulum has been swinging for years in one direction, it does not make the return beat in an instant.

In employing electricity, just as in the use of medicaments generally, the time required to complete a cure must bear some proportion to the duration of the malady.

3. For the successful employment of electricity in the various diseases for which it is applicable, there is need of much more skill, patience, and experience than is commonly supposed. It cannot be too often repeated, line upon line, and precept upon precept, that no specialty in science, however restricted may be its scope, can be thoroughly mastered without a good measure of skill, energy, and patience. And in regard to this very humble department of electricity, in the selection and care of the apparatus, in the wise discrimination between the cases which are and those which are not amenable to this method of treatment, in the acquiring of the requisite facility and effectiveness of application—in the entire mastering of the whole subject, there is a wide range for the exercise of scientific genius and diligence, and as imperious a necessity for large and varied experience, as in any other department of therapeutics.—*Medical Record, N. Y.*

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Reunion, January 11, 1867, Dr. Gurdon Buck in the Chair.

PRESENT POSITION OF AURAL SURGERY.

Dr. Roosa remarked that the present method of examining the membrana tympani was a most decided improvement upon the somewhat familiar routine of the old practitioners. This revolution began with Prof. Troltsch's suggestion of the concave mirror, of six-inch focus and having a small central aper-

ture for the convenience of the observer. Prof. T. combined with this the tubular speculum. There were those who even believed that the simple mirror would supersede Desormeaux's endoscope.

Another grand advance had been made in our appreciation of the real objects of interest, which present themselves for inspection. Formerly only the handle of the malleus and the periphery of the drum challenged attention. Now the triangular light spot, which effect, as first shown by Politzer, is due to the traction of the handle of the malleus upon the drum in an inward direction, was taking its proper rank in professional estimation. For the benefit of those who had given but little attention to aural science, he would pass around the illustrations of Dr. Politzer's work, for here this spot was prominently brought forward in the different phases of health and disease. He would also accompany those plates with certain photographic illustrations, obtained from Munich, in which the ossicula auditus and other parts of the ear were very well represented. The last number of Guy's Hospital Reports, as may be seen by a reference to the shelves of the Association, likewise exhibits perforation of the drum, although he objected to the term *normal* drum, as applied to one taken from the dead subject.

Then, again, the eustachian catheter, nowithstanding the assertion that Mr. Turnbull, in London, had killed two patients by its use, was steadily growing in the confidence of surgeons. Apropos of the danger to be encountered, he would answer with the experience of Continental and American surgeons, by whom this most excellent means of diagnosis was highly lauded. The only objection of value, and this a probable accident merely, was a rupture of the mucous membrane, which might produce an emphysema transient in character. Nothing alarming, so far, had occurred in his hands to induce him to abandon the instrument, unless a case of fainting might be regarded as an exception. Certain it is that the catheterism of the eustachian tube is an operation frequently performed in the Eye and Ear Infirmary, and in private practice, without any feeling of dread. The value of the procedure is demonstrable in chronic catarrhal inflammation of the middle ear (the chronic myringitis of Sir William Wilde), but it is not applicable to the treatment of a very rare affection, to wit, the stricture of the tube.

Bougies, for the strictures above alluded to, were now likewise benefically used. In this mode of treatment, Dr. Francis Simrock, of this city, had a large experience.

With regard to Politzer's method of inflation too much cannot be said. The late Mr. Toynbee proved that the eustachian tube was closed except during the action of certain muscles concerned in deglution; Politzer practicalized the discovery by requiring the patient to swallow, while the surgeon forced air through a tube, placed in one nostril while the other was closed. In this way, the rush of air through a ruptured membrane was readily appreciated, and at once became a valuable diagnostic sign. If during the experiment the membrana tympani chanced to be ruptured, there need be no apprehensions, since the wound thus caused very readily healed. Dr. R. spoke warmly of this method in those subacute cases, of which the following was a type, and which he would relate as exhibiting its success: A boy of scrofulous constitution, exposed to the action of cold, "gets," in common parlance, "his ears stopped up." This deafness promising to be permanent, he is treated according to the best intelligence of the period, by cauterization of the throat and removal of the tonsils, but without benefit. His physician, as soon as Politzer's method was promulgated, sent for the boy, applied the principle, and was rewarded by the fact that the patient heard an ordinary conversation in five minutes. This patient was again attacked a number of months after, and again in like manner relieved.

Politzer's method, however, was not valuable in chronic peripheral thickening, as shown by change in form of the light spot, etc. Its good effect was chiefly manifest in the removal of mucous accumulations which might take on structural changes. In perforations, Politzer's apparatus had been made available in thoroughly cleansing the canal established as a result of inflammation. This was accomplished by filling the affected ear with warm water, afterwards stuffing the meatus with raw cotton. The tube, cavity of tympanum and external meatus, were thus thoroughly washed out.

The nebulizer was now used in the therapeutics of aural diseases. Dr. Bishop's apparatus for nebulizing the mouth of the eustachian tube very often sends fluid instead of spray, but this freak sometimes being of advantage could hardly be urged as an objection. For the injection of iodine he had found Buttles's inhaler a very useful addition to Politzer's apparatus. Dr. R. alluded to and exhibited a few other appliances, upon the claims of which he descanted at some length.

Artificial membrane tympani were now found more generally applicable than before supposed. Mr. Toynbee's disc of rubber being liable to separate from its attachment and act as a for-

eign body in the ear, has been modified by a German, who has ended off the little wire with a spiral arrangement. The disc is secured by one or two of these closely fitting coils, in the same manner that a cork is by the cork-screw. In one case in Dr. R.'s experience the hearing distance was prolonged, during the use of these dics, from one or two inches to two feet, which was certainly a very comfortable gain to the patient.

Then, again, the otoscope, for listening to the passing of air into the middle ear, is a refinement in our means of diagnosis unknown to our predecessors. We have now also better defined ideas regarding the aftergrowths in the ear. What Mr. Toynbee was pleased to call exostoses of arthritic or syphilitic origin, are now accepted as being due to a primary periostitis. We expect, therefore, to prevent their formation. As an earnest, indeed, of the benefits to be derived from the future cultivation of this inviting field of inquiry, it is observed that aural polypi, which are now regarded as exuberant granulations merely, are much less frequently met with than they were ten years ago.

The change in nomenclature points out more exact knowledge of aural diseases, since such terms as otorrhœa, myringitis, etc., which only mislead the student are falling into disuse. We now know that the ceruminous secretions and the inflammation of the middle ear are independent of each other.

The *literature* of the subject is now no longer meagre; publications of high authority are readily attainable in London, Paris, Vienna, Munich, and New York. In addition to these facilities, we have a German quarterly devoted to the consideration of the topic. In fact, careful, earnest students are pursuing the branch with enthusiasm, and have already been rewarded by the most brillant returns. For the matter of that, statistics show that, exclusive of the chronic cases inherited by us from a previous generation, we are not more unsuccessful in our therapeutics here than in other parts of the body.

Dr. R., in the course of his remarks, gave some very interesting statistics, collected by himself and Dr. G. M. Beard in the asylums of New York and Hartford, the object of which was to fix the relation sustained by the pharyngeal mucous membrane towards the membrana tympani in the causation of congenital deafmutism. These, he promised, should be published in due time. He also maintained that the difficulties attendant upon the study of the disease were not as great as generally supposed—they need not interfere with the duties of the most active practice.

Dr. Ellsberg called attention to the omission on the part of

Dr. Roosa to mention the importance of inspecting the post-pharyngeal space. The element in diagnosis, in the course of Dr. R.'s extemporaneous remarks, had, no doubt, temporarily escaped the memory of the speaker.

Dr. Roosa acknowledged his indebtedness to the gentleman, and made a few remarks upon rhinosophy.

The Association then adjourned.

Clinical Reports.

Mercy Hospital Clinic:—Cardiac Disease with Œdema of the Lung, etc.—Inflammation of Knee-Joint.—Clinic by Prof. N. S. Davis.—*Ward No. 9.* The attention of the class was first called to Mr. B., a German, aged about 24 years. The lecturer reminded the members of the class that they had already once carefully examined the same patient, immediately after his admission to the hospital, eight days previously. At that time, the patient was sitting up in bed, the knees drawn up and the arms resting on them for the purpose of supporting the body in a position a little inclined forward, with extreme dyspnœa. The face was somewhat bloated; expression dull, with constant drowsiness; and the lips, nose, and hands were of a livid or dark purplish color, and colder than natural. The pulse was quick, small, and irregular, and the heart's action irregular, but tumultuous and violent. The tongue was clean; the mouth moist; bowels regular; urine natural though scanty; but loss of appetite and great sense of weakness. Percussion revealed entire dullness over the lower part of the right side. Auscultation afforded no respiratory sound over the whole left side, and only a coarse rhonchus over the upper and anterior part of the right. From the extreme difficulty of breathing and the irregular and violent action of the heart, it was almost impossible to appreciate the cardiac sounds. All that could be learned concerning the history of the case was, that he had been troubled with frequent paroxysms of dyspnœa, called asthma, for two or three years, and a constantly increasing shortness of breath on attempting to take exercise.

In analyzing the symptoms and physical signs, at that time, with a view to diagnosis, it was stated that the dyspnœa, the dullness on percussion, and the absence of respiratory murmur, all indicated greatly increased density of the lungs and a corresponding diminution of capacity for air. And it was stated that such increased density might depend on three different pathological conditions, namely, pneumonic hepatization, compression from pleuritic effusion, and œdema or serous infiltration of the pulmonary tissue. That it was not the first, in the case before us, was evident from the absence of fever, of pneumonic expectoration, and of those rhonchi which are always present in some degree in hepatization, and from the attitude of the patient. We never see a patient with hepatization of the lung sufficiently extensive to render a whole side dull on percussion, and face livid from decarbonization of the blood, habitually seeking to sit upright in bed with the arms resting on the knees, as was the case with this patient. That it was not pleuritic effusion, was equally evident, from the absence of enlargement of the side most affected, the absence of any bulging of the intercostal spaces, and the absence of displacement of the heart; for if the left side of the chest was filled with serous effusion sufficient to suppress the respiratory murmur and render the whole side dull, it would necessarily enlarge the side and crowd the heart towards the sternum.

The class will remember that by this negative process of investigation, as well as by the positive character of the existing symptoms, it was announced as the opinion of the lecturer, that the patient was laboring under extensive œdema of the left lung, with partial œdema of the lower lobe of the right. Whether this state of the lungs had resulted from primary valvular disease of the heart, more especially of the mitral valve, which would obstruct the return of blood from the lungs, or from such a degree of constriction of the bronchial tubes as had prevented sufficient ingress of air to oxygenate and decarbonize the blood, could not be positively determined at that time for reasons already given. The immediate indications for treatment, however, were obvious. The patient was suffering

the direct effects of defective aëration of the blood, while the heart was violently sending the blood to the already engorged and infiltrated lungs faster than it is capable of passing through the pulmonary capillaries. Hence, to increase the oxygenation of the blood, and moderate the violent and unsteady action of the heart, were indications of pressing importance. To accomplish the first, the patient was ordered to have the following:—

℞. Chlorate of Potass.,---------- ℥ij.
Pulv. G. Arabic,---------- ℥iij.

Mix and dissolve in an ordinary tumbler full of cold water, and take a *tablespoonful* every two hours, until the blueness of the lips, nose, and hands was diminished, and then lengthen the intervals to once in four hours. To meet the second indication, three drops of the saturated tincture of veratrum viride were directed to be taken between each of the doses of the chlorate of potassa, and the quantity increased or diminished as should be found necessary to keep the action of the heart more quiet and uniform. This treatment was continued for three days, with a slow but decided improvement in the condition of the patient. The heart's action became more steady; the pulse more regular; the lips, nose, and hands more natural color; and the dyspnœa less. Six-grain doses of iodide of potassa were then given in place of the chlorate, every four hours, and six drops of tinct. gelseminum alternated with it in place of the veratrum viride. This has constituted the treatment until the present time. The patient is now resting in the recumbent position; pulse nearly regular; skin natural in temperature, and much improved in color; but the respiration is still very short and inflation of the lungs very imperfect, with frequent suffocating cough; scanty and tenacious expectoration, and great sense of weariness, yet unable to obtain refreshing sleep.

The patient being quiet and resting in an easy position, each member of the class was required again to listen to the cardiac and respiratory sounds. The heart now acting more slowly and regularly than at the first examination, it was easy to distinguish a rough sound continuous after the first sound of the

heart and coïncident with the diastole of the ventricles. It was most audible about one inch below the nipple, nearly over the apex of the heart, thus indicating disease of the mitral valve sufficient to partially obstruct the left auriculo-ventricular opening. On extending the examination to the lungs, it was found that the right lung expanded much more freely than at the time the patient was admitted, although there was still some dullness and sub-mucous rhonchus over the lower and posterior part of that side. The upper lobe of the left lung had become partially permeable, as indicated by some rhonchus, but the dullness was still strongly marked. And the sudden, short expiratory act showed that far less than the natural quantity of air entered the lungs by inspiration. The present examination confirmed the previous diagnosis, so far as related to the pulmonary œdema, and rendered it quite certain that it was complicated with organic valvular disease of the heart. The existence of the latter, rendered the prognosis unfavorable, so far as related to full recovery. And yet, the continuance of judicious treatment may so far improve the condition of the patient as to enable him to take some moderate degree of exercise. The objects to be accomplished by treatment are still the same as were pointed out at the previous clinic, namely, to control the excessive action of the heart; to hasten the reäbsorption of the serous effusion or infiltration into the pulmonary tissue; and to promote the rest of the patient. To accomplish these purposes, the patient was directed a simple but nutritious diet; six drops of the saturated tincture of gelseminum half an hour after each meal, and a teaspoonful of the following emulsion every four hours:—

℞. Chloroform,---------- ℥iij.
Fl. Ext. Cannabis Ind.,---------- ℥iij.
Iodide Potassa,---------- ℥iij.
Pulv. G. Arabic,----------
White Sugar, ---------- āā ℥iv.
Rub together, and add,
Mint Water,---------- ℥iij.
Mix.

Case II. The second case presented to the class during the

clinic hour, was one in which there had been sub-acute inflammation of the synovial membrane and cartilages of the knee-joint; but which had nearly disappeared under the influence of entire rest and a succession of blisters over different parts of the joint. Of this, our space will not admit even a brief report.

Book Notices.

Proceedings of the American Pharmaceutical Association at the Fourteenth Annual Meeting, held in Detroit, Mich., August, 1866. Also the Constitution and Roll of Members, Philadelphia: Merrihew & Son, Printers. 1866.

This is a very neatly printed volume of 316 pages, containing the reports, essays, and proceedings presented at the last Annual Meeting. We should think it a work of great value to every intelligent druggist and pharmaceutist, and several of the reports and papers are equally interesting and valuable to the physician. We think copies can be obtained by applying to E. H. Sargent, Druggist, corner of Randolph and State Streets, Chicago.

Diphtheria; A Prize Essay. By E. S. Gaillard, M.D., Richmond, Va. Reprinted from the *Richmond Medical Journal.*

This is a monograph of 114 pages. Of the many essays written upon this subject during the last ten years, this is certainly one of the best. The author devotes a large part of his work to the elucidation of the pathology of the disease. He regards the disease as a general one, involving a morbid condition of the whole mass of blood, and the development of certain local inflammations of an asthenic character. Of necessity, treatment founded on such views of the pathology, must be corrective and tonic. The correctness of this has been shown by observation at the bedside.

On the Relations which Electricity sustains to the Causes of

Disease. By S. LITTELL, M.D., Emeritus Surgeon of Will's Hospital, Philadelphia. From the *Transactions of the American Medical Association.*

This is a report of 54 pages, originally presented to the American Medical Association, in Boston, 1865, but not printed in the *Transactions* until the following year. It is an exceedingly interesting and important paper. We have only space for the following summary of doctrines which are appended to the report:—

"1st. That heat and electricity are identical, as the one can be converted into the other.

2d. That a large volume of electricity surrounds every primary constituent of matter, especially that form of matter which constitutes the gaseous bodies.

3d. That animal heat is supported by the electricity liberated from the primary constituents of matter during the processes of respiration, digestion, and assimilation.

4th. That electricity is evolved during these processes on the same principle as that which is evolved during the action of a galvanic arrangement.

5th. That electricity and nervous power are analogous, if not identical, as the action of one can be successfully substituted for the other.

6th. That the majority of diseases are caused either by the sudden obstruction, or slow abduction of electricity from the body.

7th. That a low state of electric tension on the surface of the earth, produced either by the operation of evaporation, or some occult movement in the great internal currents of the earth is the remote cause of epidemic and pestilential diseases.

8th. That occasional and ordinary diseases are produced by the sudden abstraction or slow subduction of electricity from the body, or its sudden elimination during the vital processes.

9th. That since electricity is so essential to the integrity of the vital operations, it is indispensable that measures be taken to produce its evolution, and to prevent over-radiation.

10th. That electricity is the source of vitality in vegetable life.

11th. That electricity is attracted by the fibres of the roots of plants; and by the instrumentality of the electric fluid does the plant attract its constituents from the soil.

12th. That vegetables of rapid growth require a large supply

of electricity to secure their perfection and completion; and the potato is a plant of this kind.

13th. That the disease in the potato was produced by the want of nutrition.

14th. That the want of nutrition arose from defective electric agency.

15th. That the cause of the deficiency of this agency was those abstracting influences which produced low tenison of electricity."

Reduction of Inverted Uteri, by a New Method. By THOMAS ADDIS EMMET, M.D., Surgeon in charge of New York State Women's Hospital.

This is a very neatly printed pamphlet of 15 pages, detailing two cases of reduction of inverted uteri by upward pressure, simultaneous with efforts to dilate the constricting part around the part of the organ last inverted. The first case had existed seven months, and the time consumed in effecting a reduction was *three hours and fifty-five minutes*, the patient being fully under the anæsthetic influence of ether all the time. The second case was one of eight months duration, and was reduced in *one hour and twenty minutes*. These cases, as related by Dr. EMMET, are of great interest and value, and should be read in detail by the profession.

Clinical Observations on Functional Nervous Disorders. By C. HANDFIELD JONES, M.B., Cantab.; F.R.C.P., London; F.R.S.; Physician to St. Mary's Hospital. Philadelphia: HENRY C. LEA. 1867. pp. 348.

For sale by W. B. KEEN & Co., 148 Lake Street.

Infantile Paralysis, and the Attendant Deformities. By CHAS. FAYETTE TAYLOR, M.D., etc., etc., etc. Philadelphia: J. B. LIPPINCOTT & Co. 1867. pp. 119. Duodecimo.

For sale by S. C. GRIGGS & Co., 41 Lake Street.

Notes on Epidemics. For the Use of the Public. By FRANCIS EDMUND ANSTIE, M.D., F.R.C.P., Senior-Assistant Physician to the Westminster Hospital. First American Edition. Philadelphia: J. B. LIPPINCOTT & Co. 1866. pp. 95. Duodecimo.

For sale by S. C. Griggs & Co., 41 Lake Street.

The Common Nature of Epidemics, and their Relations to Climate and Civilization. Also Remarks on Contagion and Quarantine. From Writings and Official Reports. By Southwood Smith, M.D., Physician to the London Fever Hospital, etc., etc., etc. Edited by T. Baker, Esq. Philadelphia: J. B. Lippincott & Co. 1866. pp. 130.

For sale by S. C. Griggs & Co., 41 Lake St. Price $1.50.

Lessons upon the Diagnosis and Treatment of Surgical Diseases, Delivered in the month of August, 1865. By Professor Velpeau, Membre de l'Institute et de l'Académie de Médecine. Collected and edited by A. Regnard, Interne des Hôpitaux. Reviewed by the Professor. Translated by W. C. B. Fifield, M.D. Boston: James Campbell. 1866. Duodecimo. pp. 103. Price $1.00

Editorial.

Medical Convention.—At the meeting of the American Medical Association, held in the City of Baltimore, May 3d, 1866, the following resolution was adopted with much unanimity, and the undersigned appointed a Committee to aid in carrying it into practical effect:—

Resolved, That this Association earnestly requests the Medical Colleges of the country to hold a Conventiou for the purpose of thoroughly revising the present system of Medical College instruction, and that a Committee be appointed to aid in carrying the resolution into effect.

In fulfilling the duties enjoined on them, the undersigned respectfully and earnestly invite the Trustess and Faculty of each of the regularly organized Medical Colleges in the United States to send representatives to a Convention to be held in the City of Cincinnati, Ohio, on Friday preceding the next Annual Meeting of the American Medical Association; namely, on the 3d day of May, 1867. We would also respectfully sug-

gest that all delegates to such Convention be prepared to consider fully and act upon the following subjects:—

First. The adoption of a more uniform and just rate of Lecture Fees by all the Colleges in this country.

Second. The propriety of increasing the length of the Annual Lecture Term, and the number of Professorships.

Third. The adoption of measures for securing more thorough attention on the part of students, to the more elementary branches of medical science, and a more progressive order of medical studies.

Fourth. The practicability of requiring three Annual Courses of Lectures, instead of two, as a condition of graduation; and of making Hospital Clinical Instruction a necessary part of the Third Course.

Fifth. The practicability of establishing and exacting some appropriate standard of preliminary education for young men proposing to enter upon the study of medicine.

Feeling confident that a free interchange of views upon these, and such other topics as the Convention might deem proper, would result in the adoption of measures of great importance to the interests, honor, and usefulness of our profession, we again cordially and earnestly invite your coöperation.

N. S. DAVIS,
S. D. GROSS,
WORTHINGTON HOOKER,
M. B. WRIGHT,
GEO. C. SHATTUCK,
} Committee.

This is a very important movement, and we sincerely hope that the invitation of the Committee will be responded to by every Medical College in the whole country. The time named, allows three working days before the opening of the next meeting of the American Medical Association, during which the important topics connected with the education of the profession could be freely and deliberately considered. It is a movement which has long been demanded by the general sentiment of the profession; and if the older Colleges in Philadelphia, New York, and Boston promptly respond to the invitation of the

Committee, the Convention will result in the accomplishment of much good.

Illinois State Medical Society.—The next Annual Meeting of this Society will be held on the first Tuesday in June, at Springfield. The Committees expected to report at that meeting are as follows:—

Committee on Practical Medicine.—Drs. J. Adams Allen, of Chicago; R. E. McVey, of Waverly; and L. T. Hewins, of Loda.

On Surgery.—Drs. H. W. Davis, of Paris; C. R. Parke, of Bloomington; and G. R. Bibb, of Jacksonville.

On Obstetrics.—Drs. DeLaskie Miller, of Chicago; N. Wright, of Chatham; J. N. Ralston of Quincy.

On Drugs and Medicines.—Drs. P. H. Bailhache, of Springfield; N. T. Quales, of Chicago; and J. Miner, of Waverly.

On Ophthalmology.—Dr. E. L. Holmes, of Chicago.

On Spinal Curvatures and Hip-Disease.—Drs. J. W. Freer, and R. G. Bogue, of Chicago.

On Plastic Surgery.—Dr. David Prince, of Jacksonville.

On the Co-Relation of Electricity and Nervous Force.—Dr. D. T. Kyner, of Macon.

On Specialties and Medical Advertising.—Drs. T. D. Fitch and N. S. Davis, of Chicago; and D. Prince, of Jacksonville.

On the Radical Cure of Reducible Hernia.—Dr. G. T. Allen, of Springfield.

On Syphilis.—Dr. W. M. Chambers, of Charleston.

We hope the profession in every part of the State will be represented, for we are sure the meeting will be both interesting and profitable. The Volume of Transactions for 1866, has been published and copies sent to all members who are credited with the payment of the annual assessment on the books of the Treasurer.

Rush Medical College Commencement.—The twenty-fourth Annual Commencement of this Institution was held on Wednesday evening, January 30th, 1867; at the end of their

usual 16 weeks Lecture Term. Prof. J. V. Z. BLANEY, who had been lately elected President of the Faculty, in the place of the late Prof. BRAINARD, conferred the degree of M.D. on 72 candidates; being about 20 less than the number graduated the year previous. Before conferring the degrees, Prof. BLANEY paid an appropriate tribute to the memory of his predecessor, Prof. BRAINARD.

The Valedictory Address was delivered by Prof. E. INGALLS, and consisted mainly, as it should, of plain, practical, common sense instructions to the graduating class.

It was officially announced that Prof. MOSES GUNN, of Detroit, had received and accepted the appointment to the chair of Surgery, made vacant by the death of Prof. BRAINARD.

CHICAGO MEDICAL COLLEGE COMMENCEMENT.—The Eighth Annual Commencement Exercises of this Institution will take place on Tuesday evening, March 5th, 1867; and will be preceded by a public examination of the candidates in class, during the preceding day. There is an excellent class in attendance, and we have no doubt but its members will sustain themselves creditably, throughout the unusually extended examinations to which they are subjected in this College.

PHYSICIAN'S POCKET RECORD.—We have received, from the office of the *Philadelphia Medical and Surgical Reporter*, a copy of the *Pocket Record*, which was noticed and its contents quoted in a recent number of the EXAMINER. It is published and bound in excellent style, and in its size, arrangement, and contents is, perhaps, the most convenient and useful visiting list and memorandum book for the physician that has yet been published. Price $1.50.

BOOKS NOT RECEIVED.—We see, by our exchanges, that Dr. D. PRINCE, of Jacksonville, has published a volume on *Orthopædic Surgery*, which is a revision of his report on that subject to the Illinois State Medical Society. Though the publishers have not favored us with a copy, we nevertheless assure our readers that it is one of the best practical works on that sub-

ject that has been written, either in this country or in Europe.

We also notice, in some of our exchanges, that a new edition of *Wood's Practice of Medicine* has been issued, carefully revised by its author. Though our recommendation of the work has, probably, aided in its sale throughout the North-west during the last 15 years, more than any other one individual, yet we were not favored with a copy of the former editions, nor, thus far, one of this. We do not complain of this, for, happily, we are able to buy the new edition, and independent enough to recommend it, as we have done the former ones, so far as we deem it worthy. And if the publishers should send us a dozen copies, we would do nothing more.

NOTES UPON GENERAL SCIENCE.

Geological Discoveries in the Excavation of Chicago Tunnel.—In order to obtain for the City of Chicago a full supply of pure lake water, a tunnel has been dug, commencing at the shore and extending two miles outward, under the bed of Lake Michigan. This excavation is, its whole distance, through the formation called by geologists, "glacial drift," "boulder formation," etc. It is a hard clay, full of boulders, many of which show, by peculiar marks and parallel scratches on their surfaces, that they have, at some former period, been imbedded in moving glaciers, like those of the Alps. Prof. Agassiz maintains that wherever this drift is found, it has been deposited, not by water, but by glaciers. Other geologists dispute this, and claim that the drift was deposited by water, and that the boulders were dropped from icebergs floating on the surface. A very important test question in the case was, whether the glacial drift was stratified or not. If stratified, it is a water deposit. If not, it is a glacier deposit. The excavations in the tunnel show that the glacial drift at this locality is clearly stratified, and, therefore, a water deposit.

In excavating, the workmen opened a spring of inflammable gas, which burned four or five days and then ceased.

A very curious discovery was made, of numerous "pockets" or masses of clean, loose gravel, bedded in the clay in such

forms and singular positions as to show that they were originally masses of frozen gravel, dropped, like boulders, to the bottom, and bedded in the accumulating clay, and, finally, thawed out by internal heat after they were covered up in the earth.

Death of Major Robert Kennicott.—This distinguished young naturalist went on a scientific expedition to the region near Behring's Straits in connection with the officers of the Overland Telegraph Line, which is to enter Asia by that route. He expected to make very valuable discoveries and collections for the Chicago Academy of Sciences He died instantaneously, on the banks of the Youkan River, in the Russian Possessions, probably from apoplexy. His remains are on the way home. He is lamented as the most active and enthusiastic naturalist of the West, and his death is a great loss to American science.

Fossil Remains of the Island of Malta.—Investigations made in the ravines and caverns of Malta, show an astonishing number of elephants, hippopotami, and other large animals, to have lived there at a former age. The appearances indicate that crowds of animals died at once, from some great convulsion of nature. The geologists who have investigated the deposits, are of the opinion that more animals died at one time than the whole island could support in its present size. They believe that Malta must, at a former period, have been connected with Africa by a tract of territory which is now beneath the sea; and that it became submerged by some convulsion which destroyed the land animals. If this extensive tract were lowest near the present African shore, or began to sink first near there, the effect would be to drive all the animals before the advancing waters until they were concentrated in vast numbers upon the high grounds of the present island, there to die by starvation, or by the submergence of their last refuge in the waves.

The expenditures of the New York State Inebriate Asylum from its organization to September 1, 1866, according to a recent report, have been $401,635 29.

MORTALITY FOR THE MONTH OF JANUARY.—The subjoined is the mortality report of Health Officer Bridges for the past month. It includes an accurate list of the number of deaths, with places of nativity, cause of death, a comparative statement, and other valuable information:—

CAUSES OF DEATH.

Accidents,	3	Fever, Remittent,	3
Bronchitis,	1	Fever Purperal,	1
Burned,	1	Fever, Scarlet,	21
Cancer,	2	Fever, Spotted,	1
Childbed,	8	Fever, Typhoid,	11
Colic,	1	Fever, Congestive,	1
Congestion of Brain,	3	Hydrocephelus,	3
Congestion of Lungs,	2	Inflammation of Brain,	3
Consumption,	40	Inflammation of Lungs,	10
Convulsions,	38	Inflammation of Bowels,	3
Croup,	11	Inflammation not stated,	3
Cold,	1	Killed,	1
Diabetes,	1	Old Age,	11
Disease of Brain,	1	Pneumonia,	1
Disease of Bowels,	1	Poisoning,	1
Disease of Heart,	6	Phthisis Pulmonalis,	2
Disease of Kidneys,	4	Rheumatism,	1
Disease of Liver,	2	Stillborn,	22
Disease of Lungs,	4	Scald,	1
Disease of Spine,	2	Small-Pox,	1
Diarrhœa,	4	Suicide,	2
Diphtheria,	8	Teething,	12
Delirium Tremens,	2	Whooping-Cough,	10
Dropsy,	5	Unknown,	20
Erysipelas,	2		
Epilepsy,	1	Total,	299

AGES OF THE DECEASED.—Under 5 years, 157; over 5 and under 10 years, 15; over 10 and under 20, 11; over 20 and under 30, 28; over 30 and under 40, 32; over 40 and under 50, 22; over 50 and under 60, 6; over 60 and under 70, 12; over 70 and under 80, 6; over 80 and under 91, 1; unknown, 9. Total, 299.

NATIVITIES.

Chicago,	156	Germany,	44	On the Sea,	1
Other States,	39	Ireland,	28	Unknown,	5
Canada,	5	Norway,	3		
Denmark,	1	Poland,	1	Total,	229
England,	12	Scotland,	4		

DIVISIONS OF THE CITY.

North,..... 93 | South,..... 87 | West,.....119 | Total,..... 299

Total number during the month of December, ... 309

Total number last year for the month of January, ... 292

METALLIC SPECTACLES.—M. Foucault recently communicated to the French Academy of Sciences the fact that the sun may be viewed through a lens covered with silver leaf. The sun's disc, shorn of its beams, can thus be clearly seen. Sub-

sequently, M. Melscius made a useful application of Foucault's discovery. Having been injured while making an experiment in the laboratory, his eyes were painfully affected by light. In this condition he had recourse to spectacles with black glasses, such as are used by engine-drivers; over these he put green glasses, which answered pretty well; but on further experiment, he found the best method was to use pale-blue goggles, covered with silver or gold film, and these he recommends to all persons troubled with weak eyes.

The Headquarters of Drunkenness. — Liverpool has been pronounced the most drunken town in England. And it is true. Its extreme drunkenness arrests the attention of the judges, its pauperism weighs heavily upon the rate-payers; its rate, fifty-six per thousand, appalling. The drunken cases dealt summarily with by the magistrate are set down at the annual rate of one in thirty-three of the population. The habitual drunkards, in their periodic appearances before the bench, form an endless chain of besotted creatures. According to the recently published judicial statistics there are 3,100 habitual drunkards in Liverpool, and they are about equally divided as to sexes.—*Liverpool Albion.*

Poisoned Bread at Winona, Illinois.—It will be remembered that in July last, at a hotel in Winona, Illinois, a large number of persons were poisoned by eating warm biscuit at breakfast. The case attracted much attention, from the fact, that a few days before, some forty persons were in a similar manner poisoned at a hotel in Indianapolis; and from the circumstance, that self-raising flour was charged with having produced the poisoning at Winona. The public had not forgotten the bread-poisoning on a large scale in the State of N. Y., where the metallic lead used to bind the burr-blooks composing the mill-stones had been abraded and mixed with the flour in grinding. The investigation of the Indianapolis case by Prof. Wormley, of Ohio, revealed in the sour milk employed, with salæratus, to make the bread light, five and a-half grains of tartar emetic and a trace of arsenic, in a single pint. A similar case at Atlanta, Georgia, in which a whole family was poisoned, was traced to arsenic introduced by a servant.

The Winona case was taken up by the physicians and druggists of the place, and prosecuted till they and the victims generaly became satisfied that the self-raising flour had nothing to do with the poisoning. The investigation was renewed by

Prof. Horsford, of Cambridge, Mass., and the results at which he arrived are embodied in the following statement:—

1. That there was substantially no self-raising flour in the batch from which the biscuit were made.
2. That poison was introduced into the biscuit, through the sour milk employed with salæratus, in ordinary flour, to make the biscuit light.
3. That the poison was introduced by design.
4. That the poison was arsenic.—*Medical and Surgical Reporter.*

A Remarkable Solvent.—It is now discovered, it appears, that if a piece of copper be dissolved in ammonia, a solvent will be obtained, not only for lignine, the most important principle of all woody fibre — such as cotton flax, paper, etc.—but also for substances derived from the animal kingdom, such as wool and silk. By the solution of any of these an excellent cement and water-proofer is said to be formed; and, what is equally important, if cotton fabrics be saturated with the solution of wool, they will be enabled to take the dyes — such as the lac dye and cochineal hitherto suited to woollen goods only. —*Exchange.*

A New Instrument for Subcutaneous Injections.—M. Bouillaud lately presented to the Academy of Medicine of Paris an invention of M. Dancet, consisting of a hollow needle adapted to a metallic tube, ending in a small cup covered with an india-rubber membrane. By slight pressure upon the latter the fluid is injected into the areolar tissue, and a simple mechanism within the cup allows of the counting of the drops injected. Another and simpler needle on the same principle may be used for vaccination.—*Buffalo Med. and Sug. Journal.*

White Paste.—Make the following mixture, which will adhere to any substance:—Sugar of lead and alum, each 720 grs.; both are dissolved in water. Take $2\frac{1}{2}$ ounces of gum arabic, and dissolved in two quarts of warm water. Mix in a dish 1 pound of wheat flour with the gum water cold, till pasty inconsistence. Put the dish on the fire, and pour into it the mixture of alum and sugar of lead. Shake well, and take it off the fire when it shows signs of ebullition. Let the whole cool, and the paste is made. If the paste is too thick, add to it some gum water, till in proper consistence.—*Journal of Applied Chemistry.*

Cholera and Quarantine.—The *British Medical Journal* says, that it is the intention of the Egyptian government to institute precautionary measures against the importation of cholera by the Mohammedan pilgrims next year. The quarantine measures which it has been proposed should be adopted, have been framed with regard to both vessels and caravans, and are to the following effect:—All vessels with pilgrims are to be subjected to interrogation, and if found to have had cholera on board, are to be sent to perform quarantine. All caravans are likewise, if necessary, to undergo quarantine, for which special accommodation is proposed to be provided. And should cholera break out in the Hedjaz, it is proposed that no communication between that province and Egypt should be allowed by sea.—*Philadelphia Med. and Surg. Reporter.*

The Gain in the Average Duration of Human Life.—Dr. C. A. Logan, in his "Report on the Sanitary Relations of the State of Kansas," cites the example of Geneva, in Switzerland, where an accurate record of the population, births, and deaths, has been kept for more than three centuries past, or since the year 1560. By a series of historical and statistical compilations, M. Mallet has ascertained that from the year 1560 to the year 1600, the mean duration of the lives of the people was, in round numbers, twenty-one years and two months. During the seventeenth century, the mean life had increased to twenty-five years and nine months; and in 1833, it had reached forty-five years and five months, being nearly double what it was about two centuries before. This result was brought about by a most salutary regulation of the public health, through which much of the former unnecessary sickness was prevented.

The Paris Exposition.—"The improvements in Hospital construction and equipment, in surgical appliances, in means of transportation of sick and wounded, etc., resulting from the vast experience of the War, are considered worthy of exhibition as an evidence of National progress, and with this view, models of U. S. General Hospitals, with their equipment, of ambulances, litters, medicine wagons, etc., have been prepared, and will be forwarded through the proper channels as the contribution of the Medical Department U. S. A., to the Paris Exposition."

International Medical Congress of Paris.—An International Medical Congress is to be held in Paris on the 16th of

August, 1867, under the auspices of his Excellency the Minister of Public Instruction. The Congress will be exclusively scientific, and will last two weeks. The labors of the Congress will include communications upon questions proposed by the committee, and also upon subjects not in their programme, which runs as follows:—1. The Anatomy and Pathological Physiology of Tubercle—On Tuberculization in different Countries, and its influence on the General Mortality. 2. The general Accidents which cause Death after Surgical Operations. 3. Is it possible to propose to the various Governments efficacious measures for restraining the Propagation of Venereal Diseases? 4. On the influence of the Dietary of different Countries in the Production of given Diseases. 5. On the influence of Climate, Race, and different Conditions of Life on Menstruation in various Countries. 6. On Acclimatization of European Races in Tropical Countries. 7. On the Entozoa and Entophytes which may be developed in Man.

Those who desire to bring forward communications on these or any other subjects, are requested to address their manuscripts to the General Secretary at least three week (July 26th) before the opening of the Congress.

With a view of limiting and defining the questions in the programme, the committee has appended to each article commentaries, which we cannot now quote, but to which we shall subsequently refer, indicating the points to which it desires that papers should be especially directed. Foreigners may become members of the Congress by addressing a communication to Dr. Jaccoud, Secretaire General, Rue Drouot 4, á Paris.—*London Lancet.*

The idea of this Convention is an excellent one, and steps have been taken in Boston to secure a representative from members of the Massachusetts Medical Society residing within the Suffolk District.—*Boston Medical and Surgical Journal.*

Eustachian Tube normally closed except in Deglutition.—Dr. James Jago, in a communication on the Functions of the Tympanum, published in the *British and Foreign Medico-Chirurgical Review*, defends with much plausibility the view which he had propounded before, in an Essay on the Eustachian Tube, that the normal condition of this passage is that of closure, except during the act of deglutition. This opinion is based on experiments in his own person, aided by an accidental condition of the fauces, arising from contraction of the tissues on the right side, following amputation of a portion of the

uvula. His paper is a very interesting one, and his arguments are most convincing. With regard to the provision for opening the tubes on occasion, he says:—

"That it is not the egress of sonorous vibrations from the tympanum which is to be feared, that being a matter of indifference.

"But there must be a provision against the ingress of aërial undulations from the throat, which, if admitted, would threaten the membrana tympani with incessant oscillations, and endanger both its integrity and that of the complex and delicate apparatus in connection, and violate the peace of the labyrinth *via* this sudden route with all the sonorous impulses impressed upon the animal's breath.

"That, therefore, the moment seized for bringing the tympanum into communication with the fauces must be one in which there can be no respiratory current.

"That the only instant compelling a suspension of respiration is that in which the act of swallowing is performed, and must therefore be embraced for the service just named.

"Finally, the same rule secures the tympanum against the introduction of gastric gases, etc., evolved through the fauces." —*Ibid.*

Prof. Unger, the eminent Viennese botanist and palæontologist, has been recently examining the bricks used by the ancient Egyptians in the construction of the Pyramids, and more particularly those of the Pyramid of Dashour. He has discovered that the mud of which they were made contained not only a quantity of animal and vegetable matter, but also fragments of many manufactured substances, leading to the conclusion that Egypt enjoned a high degree of civilization upward of 5000 years ago.

Insufflation of Medicated Powders in Gleet.—Dr. Mallez has contrived an instrument by which medicated powders can be conveyed to the membranous portion of the urethra, a region where lies the cause of the gleet, and which region ordinary injections cannot reach. The instrument is chiefly composed of a catheter opened at both ends, another which glides into it, and an apparatus for receiving and projecting the powders. M. Ricord presented the instrument to the Academy of Medicine of Paris, and cases are mentioned in which excellent results were obtained by insufflating subnitrate of bismuth. It is plain that, by previous micturition, the pow-

der may remain hours in the passage; and it is thought that the vagina, uterus, or any fistuluous tract may be reached in the same way.—*Lancet.*

Rapidity of Nerve Action.—Haller attempted in reading the Æneid aloud, to count the number of letters he could pronounce in a minute. Finding that he could pronounce 1,500, among which the R, according to his statement, requires ten successive contractions of the stylo-glossus, he affirms that a muscle can contract and relax itself 15,000 times in a minute; and as the time of relaxation is as long as that of contraction, each contraction requires about 1-30,000 of a minute, or 1-500 of a second. From this, Haller concludes that the nervous agent requires the 1-500 of a second to go from the brain to the stylo-glossus muscle.—*Revue des Cours Scient.*

CHICAGO MEDICAL COLLEGE.

The regular Annual Lecture Term in this Institution will commence on the first Monday in October, and continue until the first Tuesday in March following. Clinical Lectures *daily* throughout the term.

FACULTY.

N. S. DAVIS, M.D., Professor of Principles and Practice of Medicine, and of Clinical Medicine.
W. H. BYFORD, M.D., Professor of Obstetrics and Diseases of Women and Children.
EDMUND ANDREWS, M.D., Professor of Principles and Practice of Surgery, and of Military Surgery.
F. MAHLA, Ph. D., Professor of Organic Chemistry and Toxicology.
H. A. JOHNSON, M.D., Emeritus Professor of Gen. Pathology and Public Hygiene.
J. S. JEWELL, M.D., Professor of Descriptive Anatomy.
J. H. HOLLISTER, M.D., Prof. of Gen. Pathology and Public Hygiene.
RALPH N. ISHAM, M.D., Professor of Surgical Anatomy and Operations of Surgery.
M. O. HEYDOCK, M.D., Professor of Materia Medica and Therapeutics.
F. MAHLA, Ph. D., Professor of Inorganic Chemistry.
R. J. PATTERSON, M.D., Professor of Medical Jurisprudence.
J. M. WOODWORTH, M.D., Lecturer on Physiology and Histology.
E. O. F. ROLER, M.D., Demonstrator of Anatomy.

For the Winter Term, admitting to all the Lectures in the College,	$50.00
Graduation Fee,	20.00
Matriculation Fee,	5.00
Dissecting Ticket,	5.00
Hospital Ticket,	6.00

The Summer Reading and Clinical Term commences on the second Tuesday in March, and continues until the first Tuesday in July: and is free to all matriculated Students of the College. Boarding, $3.50 to $4.50 per week. For further information, address

E. ANDREWS, *Sec'y of the Faculty.*

THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M.D., EDITOR.

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Original Contributions.

ARTICLE XIV.

LECTURE DELIVERED BY DR. J. BROWN, BEFORE THE MACON COUNTY MEDICAL SOCIETY, JANUARY 1, 1867.

[After the delivery of the Lecture, a resolution was passed by the Society to furnish a copy to the city papers, and both the Medical Journals in Chicago.

MR. PRESIDENT, LADIES AND GENTLEMEN:—

At a recent meeting of the Macon County Medical Society, a resolution was passed requiring the President to deliver a valedictory address before them, and that the public should be invited to attend. In accordance with that resolution I appear before you to discharge that duty. I am well aware, that to accomplish this in such a manner that it shall be both interesting and profitable to this audience, is no ordinary task, especially by one who is not in the habit of speaking in public.

The question is frequently asked, "What is the object of all these Medical Organizations; and what good is to result from them to the Medical profession, or to the general public?" I will endeavor to answer these questions as briefly as possible.

The grand and principal object of the formation of the American Medical Association, was to improve the system of medical education in the United States. Previous to the formation of this Association, there was hardly a medical school in

America whose course of lectures exceeded from twelve to sixteen weeks. Many of them afforded scarcely any facilities to the student of medicine for acquiring a thorough medical education. Almost any illiterate, ignorant, or immoral young man, however destitute he might be of all the necessary qualifications to make a good physician, could easily gain access to some of these so-called medical schools, and after attending two partial courses of lectures he comes out a full-fledged doctor of medicine, to trifle with human life, and in hundreds, and even thousands, of instances during his long and unprofitable life, he becomes the murderer of his own friends and patrons.

The founders of this noble organization, were, many of them, the brightest stars of the medical profession in the United States. Great, learned, and good men—true philanthropists in the broadest sense of the term—and now behold the result of their glorious efforts, and the wonderful reformation that has taken place in American medical schools during the last twenty-five years.

In almost every State in the Union there are one or more medical schools whose professors are men of superior talent and moral worth, and will compare favorably with any of the medical faculties of the old world.

At the present day, a course of medical lectures extends to five months, in nearly all the American schools. The medical student now not only enjoys all the advantages of superior instruction; but nearly every school possesses ample facilities for dissection, large and valuable libraries, costly and magnificent anatomical museums, as well as large and commodious hospitals, with their hundreds and thousands of patients, who are afflicted with every variety of disease that can be conceived of, to all of which the student of to-day has free access. And no young man can avail himself of these innumerable advantages, unless he has gone through a very thorough course of study, under the instruction of some first-class physician. Must be a young man of the best of morals; must possess a good English education, to say the least, and he must have a certificate to this effect from his preceptor. And even this is only a partial

enumeration of the great benefits resulting from the united effort of the master minds of our noble profession. This bright constellation of intellects, composed as it is of delegates from almost every State in the Republic, meet annually and discuss the great medical questions of the age, and the vast improvements in medicine, surgery, and all their kindred branches. The proceedings of the Association, including nearly all the discussions of any value, are published in the various medical journals of the country, and by this means nearly every physician, from the Atlantic to the Pacific, from the Lakes to the Gulf, may keep himself thoroughly informed in reference to all the great improvements in his profession.

The success of this great enterprise, thus far, has surpassed the most sanguine anticipations of its most ardent friends.

Next in order are the medical organizations of the various States. Each bears the same relation to the American organization that each State does to the General Government, while every State Association is composed of delegates from the various county and city societies, each and every one contributing to the general good and prosperity of the State Association.

Our own beloved State of Illinois is not behind any other sister State in promoting the great interests of medical education, and in elevating the character, general intelligence, and dignity of its physicans. Have we not the Rush Medical School, as well as the Chicago Medical College? Can we not boast of the profound erudition and world-wide fame of a BRAINARD and DAVIS, who were the founders of these two splendid schools? And we may also feel proud of the St. Louis Medical School, at whose head stands a Pope, whose fame as a surgeon is not surpassed by any on this Continent. Show me a graduate of either one of these schools, and I will show you a splendid practitioner of medicine.

A few remarks now in reference to the Macon County Medical Society.—This Society was formed in 1853, by a few of the most enterprising and skilful physicians who then lived in Decatur. After having formed a constitution and by-laws, by which they were to be governed in all their business transac-

tions, they adopted a code of ethics, which was in substance the same as that adopted by the American Medical Association. This code of ethics is designed as a standard of fixed principles of right and justice in the profession, and the conduct of every true physician is regulated by it in all his business and social relations with his brethren in the profession.

The objects and aims of this association are to mutually improve its members in everything pertaining to medicine, as well as to promote harmony and brotherly feeling in the profession: both of which they are eminently calculated to produce.

From the first day of its organization, some one or more of its members have been required to read an original article on some subject connected with medicine or surgery. The merits and demerits of the paper are discussed and very thoroughly ventilated by the society, nearly all of its members taking an active part in the discussion of the article in all its bearings. To get up a paper of this character, that shall do credit to the author, and at the same time benefit his hearers, is a greater task than might be at first supposed.—No egregious blunders or false principles can be enunciated in the presence of this body of critics. As a natural consequence, a spirit of investigation is at once excited, not only in the mind of the writer, but in that of every member of the Society. Old and new books, as well as the various medical journals of the day, are reëxamined with extreme care to ascertain, if possible, everything that is known in reference to the disease under consideration, with all its symptoms, pathology, and treatment,—and I must say in all sincerity, and without the least intention of flattering any brother physician, that very many papers have been read in the Macon County Medical Society, that would reflect credit and honor to the medical profession.

The harmony and good feeling which have so long existed among your physicians in Decatur, are universally understood and commented upon by all classes of society, and this can be attributed in a very great measure to our frequent meetings.

I have now given you a hasty sketch of the objects and aims of these various Medical Associations. Every neighborhood,

hamlet, town, and city, throughout this broad land, are reaping the benefits resulting from the combined efforts of the medical profession in this great work. Is this not so? Are you not especially and very deeply interested in the character and qualifications of the physicians of this city and county? Most assuredly. Is it a matter of no importance into whose hands you place the life of your sweet babe, your lovely daughter, your noble boy, your beloved wife or husband, all that is nearest and dearest to you on earth? There is, in fact, no question of more vital importance to the interests and happiness of a family and their friends, than that of selecting a family physician. He should not only be a man thoroughly informed in all the various branches of his profession, should possess a discriminating mind, a sound judgment, but he should be a man of refinement and general intelligence, of the most irreproachable moral character; in a word, he should be like Cæsar's wife, above suspicion.

I am fully aware that many very intelligent persons upon all other subjects, exercise but little discretion and judgment in this very important matter.

If a young man comes to Decatur for the purpose of exercising his vocation as a teacher, what are the first steps he has to take before he can gain employment? Why, he has first to satisfy the county school commissioner that his moral character is unquestionable. Before he can teach our children the alphabet or the multiplication table, he must undergo a thorough examination in all the branches he proposes to teach.

But how is it frequently in the selection of a physician? One of these itinerant mountebanks comes to Decatur, his flaming handbills precede him for weeks. No one has any knowledge of who he is, or from whence he comes; and with his infamous misrepresentations and base falsehoods he imposes upon the credulity of the ignorant, as well as many intelligent persons. No one of his patrons takes the least trouble to ascertain anything in reference to his character as a man, or his qualifications as a physician, or whether he has ever been inside of a medical school, or whether he has the least authority

to practice medicine, except the license which is granted him by the city council.— Such men, ninety-nine times out of a hundred, are fit subjects for the penitentiary, and if they had their just deserts would be consigned to those comfortable quarters, pecking stone for their daily bread.

Professional brethren, I fear that we are not always true to ourselves. Have each and all of us carried out in good faith that sacred obligation which we entered into in reference to the prompt collection of our well-earned fees. I fear we have not. And why is it? Is it because physicians, as a class, can live cheaper, or, as a class, have no aspirations to live independently, and to enjoy the comforts and luxuries of life, equal to those who occupy the same position in society? No, my friends, those are not the reasons. The only true reason that can be assigned, on the face of the earth, for this dereliction of duty on the part of the Medical profession of this county, is sheer negligence; a species of carelessness; a miserable and intolerable habit of which we, as a class, are alone guilty.

In our intercourse and business transactions with all other men of this city and its surroundings, we find none of this cowardly and sycophantic manner exhibited in collecting their just dues, from all patrons, and consequently it is expected by the community at large, that no credit can be obtained of the mechanics, grocery men, dry goods, or clothing merchants. In fact, no class of men do a general credit business, except physicians.

Now is it not strange, gentlemen, that the medical profession of even our own town, do not possess sufficient firmness and decision of character to carry out a noble resolution, when the comfort, happiness, and prosperity of their families and themselves depend upon it. Look at the nerve exhibited by proprietors and clerks of business houses in Decatur, in refusing even their best customers credit, for a few days. They will say, no, we have quit that style of doing business. If you have not the money with you just now, we will ticket it to you, and drop it into the change drawer, and you can hand it to us the next

time you come in. And what is the consequence if this ticket is not cancelled in a few days? A younger clerk calls upon the debtor, and says, we would like to have that little bill, sir. And if it is not paid forthwith, a constable, in a few weeks at longest, taps you on the shoulder, and says, I have a summons for you. And if the amount is paid then to the sheriff, without any further trouble, does that individual, or any member of his family, get any more credit at that house? No, indeed, my friends. There is nothing wrong about this. It is all right, and you will unite with me in saying "amen" to this mode of doing business. And woe be unto Decatur and its bright future prospects, whenever that day comes that a general credit system is again established.

Now, on the contrary, what is the course pursued by our honorable body, as business men, in this respect? In the first place, we give our whole time and best energies of mind and body, both night and day, to our patrons, not even excepting the Holy Sabbath, that glorious day of rest, with all its joys and comforts, which brings repose to all other classes of men, and even to the brute creation, but comes not as a day of rest to the weary and care-worn physician. But on the contrary, with all the grave responsibility of very many precious lives entrusted to his skill, he moves on his endless and never ending round, visiting the sick and dying at all hours, always with a smile and a sympathetic word of encouragement, administering some God-given remedy, which cools the parched tongue of fever, and lulls the pain distracted body as by some magic spell. He is frequently exposed to the hottest summer's sun, or the rain in torrents, or to the frosty elements of cold and dismal wintry nights. After doing all of this, which is but a faint picture of the hardships experienced by every true physician, do our friends compensate us as promptly as they do other men who work for them? No, indeed, gentlemen. We return weary and fatigued over long and rough roads, through mud and sleet, at the hours of one, two, and three o'clock in the morning, broken of rest, to dream the remainder of the night of the beauties and glories of the medical profession, almost feeling

in our heart of hearts, that the messenger who had dragged us forth at the hour of midnight, from our comfortable beds, had conferred a great favor upon us. And we carry out this same idea by going to the office in the morning, and charging these hard-earned fees, with no expectation of collecting them for weeks, months, years, and perhaps never.—Now how is it with these same dearly beloved patrons; will they bring in a fatted calf, two or three fattened hogs, a load of bacon, apples, corn, wheat, or even their eggs, butter, chickens, or turkeys, or anything else they have to sell, and distribute them about town on credit, to even the wealthiest men? No, indeed! They must have money or its equivalent for *their* effects. One might suppose from this state of things that the health and life of a human being are of less value than a yard of calico, a hickory shirt, a pair of stoga boots, a basket of eggs not above suspicion, or a skim milk cheese—whose inhabitants are sometimes more numerous than the city of Decatur.

Now, does not this fault, in a great measure, lie at our own doors? Most certainly, gentlemen. And what is the result of this imbecility on our part?—Poverty, embarrassment, and almost bankruptcy to the medical profession. It is not for want of skill and energy in our profession. I will venture to assert, without fear of contradiction, (leaving your humble speaker out of the question) that there cannot be found in any other place the size of Decatur, in the United States, more intelligence, skill, talent, and true moral worth in the profession. And it has been so for many years, and has been so regarded, not only by the citizens of Decatur and its vicinity, but by the State at large.

It is a fact well known to each of you, that the delegates from Macon County Medical Society exercise more influence in the State Association than those from any other, except the Chicago Medical Society.

In the early settlement of this county a tooth could hardly be extracted, or a finger amputated, by the ablest physician living in this section of country.—How does this question stand to-day? Is it necessary for any one of our citizens to leave

home with all its endearments, to avail himself of the services of a POPE or a GROSS, in the hospitals of a strange city? Not by any means.—The most difficult operations in surgery, from the extirpation of a tumor, the amputation of limbs, the ligation of the deep-seated arteries, or the great operation of lithotomy can all be performed with as steady and firm a hand in this beautiful inland city, as in any other city in the Union.

Look at the appointments received by many of our physicians in the Union army. Every one of them receiving the place solicited, without a single rejection. Did one of them return home for want of skill, or on account of intemperance, or the want of ability on his part to discharge the duties of a physician and surgeon? No, my friends. Each returned home honored and respected alike by all.

Gentlemen, all that we ask is a fair remuneration for our services, as soon as practicable after services are rendered. This, I regret to say, has not been our good fortune in the past. Take, if you please, gentlemen, many of the physicians now living here, who have labored long and faithfully in this time-honored calling, for the people of this country, justly earning from forty to fifty thousand dollars during the last ten or fifteen years. And I ask you in the name of High Heaven what they have to show for it? This question I leave for you to answer. Now, my brothers, compare this state of things with the present condition of other men who came here about the same time, with but little capital, and engaged in other occupations, and what is the result? You find them building their brick and marble halls, living in fine residences, costly and elegantly furnished, their families not only enjoying all the necessaries and comforts, but all of the luxuries that wealth can purchase.

Now, we do not envy them in the enjoyment of all these things, but, on the contrary, rejoice that their efforts have been crowned with success, but believe it is high time that we, as a profession, should change our tactics, and may learn profitable lessons from those around us, in the successful prosecution of their various enterprises.

A reform should at once be established, and rigidly adhered

to, in the collection of our just dues. If this were so, we would experience a happy change in our circumstances. The physician who is worthy of the name, with all the vast responsibilities of his profession resting upon his shoulders, should never experience any pecuniary embarrassment. He should never be compelled to submit to that humiliating spectacle of making himself a public beggar on the corners of the street, soliciting the amount due him from his friends. Instead of this he should be able to devote his whole time and skill to the cause of suffering humanity.

Now, gentlemen, so far as I am individually concerned, my mind is fully made up on this important question, and it would afford me much pleasure to act in concert with you all in this laudable effort to collect our just earnings.

So far as charity practice is concerned, I am not only willing to do my share, but will do it with the greatest of pleasure.

Gentlemen, language is wholly inadequate to express my feelings of gratitude and love for the extreme kindness and forbearance which you have manifested towards me, since I have had the honor of presiding during the deliberations of this Association, for the past year.

When I commenced addressing you, I did not design saying so much on this subject, but it is one upon which I have felt very deeply and sadly, and if I have wearied your patience, I ask your pardon.

ARTICLE XV.

POISONING BY STRYCHNIA.—RECOVERY.

By JULIEN S. SHERMAN, M.D., Chicago.

The frequent fatal results of poisonous amounts of strychnia taken into the stomach, render the treatment of those which recover of considerable interest. The following case occurred on February 7th:—

Charles W., a resident of Chicago, *æt.* 23 years, of more than usual muscular development, desiring to "shuffle off this mortal coil," procured two grains of strychnia at 9 o'clock in the morning, and immediately deposited the same in his stomach. I was called to see him at 10 o'clock, and learned that he had suddenly fallen to the floor, complaining of inability to move his limbs, while his whole muscular system was in a state of tremor. The characteristic symptoms of poisoning from strychnia were now present. The spasms were frequent, and the rigidity of the cervical muscles marked. He complained of a sense of constriction in the fauces, and at times could only with difficulty swallow. The extremities were cool, and the mouth filled with frothy saliva. Pulse 115 to the minute; countenance extremely anxious.

An emetic of sulphate of zinc and ipecac. was immediately given and soon repeated, when free emesis was produced. A mixture of equal parts of tinct. cannabis indica and tinct. of camphor was given in drachm doses every 10 minutes; chloroform, by inhalation, was used for the first half-hour, when it was omitted, and the mixture alone given.

The convulsions, at first, were as frequent as once every 10 minutes, and similar to the action produced by an electric shock. At 11½ o'clock, they were greatly reduced in frequency, and the remedy was given at longer intervals. The symptoms soon became worse, and the dose was increased. They were again controlled, and gradually ceased entirely. By 11 o'clock at night, the patient was sleeping, and the next morning complained of extreme exhaustion, with general muscular soreness. Tonics and a nutritious diet soon completed his recovery.

During the 12 hours of treatment, nearly 4 ounces of the mixture was given, and yet none of the symptoms of intoxication from cannabis indica were developed.

ARTICLE XVI.

THE SOCIAL EVIL. EXTENT OF PROSTITUTION AND ITS CONSEQUENCES IN NEW YORK CITY. PROPOSED LEGAL MEASURES TO MITIGATE ITS EVILS.

The alarming prevalence of licentiousness, and the diseases resulting from it, in all the large cities of our country, is beginning to attract the serious attention of legislators as well as moralists. The subject is certainly one of the very highest importance, and cannot receive too careful a consideration by the medical profession. To aid in attracting attention, as well as in disseminating important facts, we copy entire the following report made by the medical members of the Metropolitan Board of Health of New York.

The facts presented will apply with full force to Chicago and almost every other large city in our country.—[Ed.]

The Board of Health met at 3 o'clock yesterday.

The report of the Committee on Prostitution was called for. The following is a copy:

To the Metropolitan Board of Health:

The Sanitary Committee, to whom was referred the resolution offered in assembly by Mr. Jacobs, viz.:

"*Resolved*, That the Board of Metropolitan Police, and the Metropolitan Board of Health, be requested to furnish to the House, at their earliest convenience, their opinion as to the necessity and the probable result of legislation looking to the more thorough restriction of prostitution in New York," beg leave, respectfully, to report that their experience as physicians had rendered them familiar with the extent to which prostitution is carried, and with the diseases arising from the diseases which emanate from it. Private practice and attendance at the dispensaries and hospitals show that these diseases are far-spread, and are of the most deplorable character.

High and low, rich and poor, are affected by venereal diseases, and no class has a monopoly of virtue. If it were so,

the moral world before this would have exterminated the immoral. Prostitution has always existed in all large communities, and will continue to exist until the present order of society shall be changed, or until the golden age of virtue, which poets have foretold, and the wise and good anticipated, shall have come.

The actual and important fact is that venereal disease is sapping the strength of the people. Husbands give it to their wives and mothers give it to their children, and when it has once entered the constitution no one can tell whether it ever will or can be eradicated. Every part of the body is invaded, the skin, brain, eyes, throat, nose, lungs, and bones. The surface of the body becomes covered with sores, and with scars which endure forever afterwards. The blood itself is poisoned, and loses its red globules, which were intended to give vivacity to the brain and strength and vigor to the muscles. The poor victim of syphilis is racked with pains, permanently debilitated and incapable of hard work, and if his means are insufficient for his support must seek refuge in the hospitals or almshouses. Death is often his best friend, and if it comes early he may be saved from a lingering consumption, or some of the varied forms of scrofulous disease.

The picture is not overdrawn. The simple facts as first stated are common and beneath the truth, yet there are some persons who, from the superior excellence of their constitutions, or from using medicines early and sedulously, escapes the severe penalties of the disease. But no one can tell in advance who these favored individuals are to be, for, with all the external signs of flourishing health, there often exists some vice of constitution which syphilis will find out, develop, and render incurable.

Innocent wives get the disease from depraved husbands, and go through the same stages of suffering, broken health and premature decay. Their children are born dead or diseased, wrinkled, covered with eruptions, and, if alive, affected with a wheezing cough and catarrh. It would be a fortunate event if their lives could always terminate before they had grown to

mature age, and before they were old enough to generate a race of decrepid and feeble children, to become burthens to themselves and to society.

Syphilis is so invidious that a person attacked with it never knows with certainty that he is cured. A little of the poison left uneradicated may taint again his whole system.

Your committee have known repeated instances where young men who (having once had the disease and believing themselves well) have ventured to marry, have generated diseased children, and these children, *in utero*, have given the disease to their mothers. This, too, after a period of six or eight years had elapsed since the disease was contracted, during which time these young men had led virtuous lives.

Physical pain and the ruined health of wife and children, perhaps their death, or the loss forever of the hope of offspring may seem punishment enough. But to these must be added the consciousness of guilt. Their sins will rise from the buried past, and like reproving ghosts haunt their souls forever with remorse and shame. No imagined suffering can transcend misery like this.

No one knows what the young man is who proposes to marry his daughter. He may possess a good character and the noblest qualities, and yet this daughter may give birth to diseased children, and die of the diseases which prostitutes have generated and disseminated. These facts must bring the subject home to every individual, and all ought to resolve that such diseases shall not continue to exist, if, in God's good providence they can be eradicated. The question, moreover, is not a private one, but of great political importance, for the health of the citizen is the wealth and power of the state. The laboring population are ruined in health, and made dependent upon the public charities.

During the late rebellion, the soldiers of our army were at various times incapacitated from engaging in active military operations by the prevalence among them of venereal diseases.

It would have been a profitable study to collate statistics to show the extent to which these diseases prevail in the public

hospitals, dispensaries, and also in private practice. We have called for this information upon these establishments, but there has been so great delay that we cannot at the present time wait for full returns. Especially we regret that nothing of consequence has been obtained from the public institutions under the charge of the Commissioner of Public Charities and Corrections, for these are the chief resort for those afflicted with syphilitic complaints.

From Dr. Frank P. Foster, of the New York Dispensary, we have been favored with a full report. He states that the whole number treated for all complaints amounted in the year 1866 to 36,162. Of these 525 were of gonorrhœa, 11 gleet, 4 balanitis, 57 of gonorrhœal epididymitis, 467 of primary venereal sore (chancre and chancroid,) 52 of venereal bubo, 2 condyglomata, 1,033 constitutional syphilis, including 11 cases of congenital syphilis. Dr. Foster says that 22 had been registered as having diseases that were the result of venereal diseases; but it must be confessed that this statement conveys but a poor idea of the real state of the case; as first, most of the cases of these diseases have been registered simply as secondary syphilis; and second, of the 2,666 cases registered simply chronic rheumatism, and of the 135 registered as struma, it may reasonably be presumed that very many (perhaps nearly one-half) were of syphilitic origin.

In the Demilt Dispensary, Dr. Cummings has reported 176 cases of primary venereal disease, and 147 cases of constitutional veneral disease, making a total of 323.

From Randall's Island Nursery, Dr. Henry A. Whittlesey writes that "the patients treated are children between the ages of 10 and 12 years. We have, therefore, only hereditary syphilis under observation, generally modified and marked by previous treatment, rendering it impossible to give statistics of value. Of the diseases of the eyes, skin, bones, joints, etc., etc., that may be presumed to have depended upon hereditary syphilitic taint, there have been treated during the past two years 316 cases out of the whole number in 1865 of 1,741 patients, and in 1866 of 1,475 patients."

Of St. Luke's Hospital, Dr. A. A. Davis, resident physician, states "that no venereal cases as such are treated in this hospital; that the diseases, the result of previous venereal diseases, such as iritis, rheumatism, diseases of the skin, bones, and scrofula, etc., about 30 cases are treated annually. The whole number being 934 patients of all diseases annually treated."

Dr. F. Moffatt, physician to the Seaman's Retreat, writes that the whole number treated in the hospital in 1866 was 1,479; venereal diseases, 139; diseases the result of previous venereal infection, 192.

Dr. D. S. Teller, of Mount Senar Hospital, says the regulations of the hospital prohibit the admission of patients with venereal diseases unless they are able to pay for their treatment, except in cases of females, when the disease is communicated by the husband. The number of venereal diseases treated in 1864 was 16; in 1865, 18; in 1866, 22. The number of secondary diseases of a syphilitic character treated in 1864 was 12; in 1865, 12; in 1866, 26. The whole number of patients admitted in 1866 was 569.

From the annual report of the Commissioners of Emigration we find the whole number of patients to have been 5,672; the syphilitic cases, 515.

Dr. W. H. Thompson, who was engaged during the war in examining recruits for the army, replies that the presence of bubo scars on 8,700 men, were in the following percentage rates:

Of the whole number, 8,700, 8 per cent. were scarred; of recruits from the country, 1.05 per cent. were scarred; of 5,000 recruits from the city, 12.25 were scarred. The different nationalities stand in the matter thus: American, 6.75; Irish, 6.08; Germans, 9.08.

To supply the deficient information we have resorted to the published report of Dr. William W. Sanger, resident physician on Blackwell's Island in 1857, who reports as follows: Penitentiary hospital, Blackwell's Island, 2,090; almshouse, 52; workhouse, 56; penitentiary, 430; Bellevue hospital, New York, 768; Nursery hospital, Randall's Island, 734; New

York State Emigrant Refuge hospital, Ward's Island, 559; New York Hospital, Broadway, 405; New York dispensary, 1,580; Northern dispensary, 327; Eastern dispensary, 630; Demilt dispensary, 803; Northwestern dispensary, 304; Medical college, 207; King's County hospital, 311; Brooklyn City hospital, 186; Seaman s Retreat, 365. Total, 9,847 cases of venereal disease; and if we add to this an equal number for the cases attended in private practice, which (considering the multitude of such persons attended by the regular physicians and the advertising quacks) is probably less than the truth, we shall have 19,694 cases of venereal disease in the Metropolitan health district.

Mr. Kennedy, Superintendent of Police, thinks that about 15 per cent. of the men who present themselves for examination to serve as policemen are excluded on account of venereal diseases.

The fountain of these diseases must be sought for among the prostitutes; and from the report made, with great accuracy, by Mr. Kennedy, we find the houses of prostitution are 569; houses of assignation, 90. The whole number of prostitutes, that is, of women who pursue prostitution as a means of livelihood, and not including those who practice private debauchery, amounts to 2,574.

To speak of the prostitution and the diseases resulting from it, and especially to propose to treat these diseases and subject the wretched women who pursue this occupation to police and medical surveillance, in hopes of eradicating these diseases, is at first sight revolting, and has always met with opposition, even in those countries which ultimately have changed their views upon the subject. Many thoughtful and good men have in times past urged upon the authorities the necessity of this control; but no one can review the subject without wounding the sensibilities of many worthy persons, who believe that to undertake to treat prostitutes would be to give encouragement to vice.

Virtue is the result of natural disposition, or arises from education and early training, which makes the moral nature ele-

vated, conscientious, and religious, and not the outgrowth of the dangers incurred from debauchery.

Since the moral view is likely to be confounded at every step, it is proper to give to it thoughtful consideration.

If it were proposed to establish prostitution in a place where it had never existed there would be a united and emphatic protest against such a measure. But since prostitution has always existed in all large communities, and the whippings inflicted in times past upon the diseased of both sexes in entering and on leaving the hospitals, the denunciations of the church, the penalties imposed by the law, in addition to the dangers of disease and loss of character, have all been powerless to prevent it, what shall be done? Are we to allow the diseases thus generated to go on to destroy the people? If debauched people lead infamous lives, are we to say that they and their companions in vice are suffering the just penalty of their profligacy? that they have offended against the laws of God, and ought to be left to suffer from ruined health, and to give disease to the innocent? Censure, when carried to cruelty, cannot be attended by any good result. It may make the offender defiant, or fill him with despair, but it is not likely to lead to his reformation. Such stern views of duty cannot be held for any length of time; for most of the diseases which afflict mankind arise from some infringement of the law of God. When one is prompted to be harsh in his judgment of others let him reflect how slight a step in many instances exists between the evil thought and the real act, that the circumstances of time and place, early associations and teachings of a colder temperament, may have been the only restraints that have delayed and saved the tempted. Let him also reflect that if the Creator has affixed penalties to vices, He has in his wisdom and goodness furnished us with remedies to treat the diseases which follow from them, and if we are wise and thankful we shall not hesitate to use them. Physicians who are most familiar with diseases and their origin, and who have fixed and elevated views of the obligations of their profession, are not likely to allow the miserable to suffer if they have the means of relieving them,

and will not allow abstract questions of casualty to perplex their judgment or to lead them to inquire how the disease was contracted when the sufferer is appealing to them for help.

The municipal authorities have spent large sums for hospitals, and many thousands of dollars are employed annually for the treatment of venereal diseases, and as the population of the district grows so must the hospital accommodations be increased; whereas, if they had treated these diseases from their origin, and had endeavored to *prevent* them, the results would have been greater, and the pecuniary outlay very much less. They have acted as if they believed that public censure would attach to them if they treated prostitutes efficiently.

Some of the dispensaries and hospitals which receive large contributions to their funds from the State and cities, have proposed to charge those affected with syphilis a certain sum for medicines, or in some way make distinctions between them and the other patients. The managers, it would seem, relieve their minds by such conduct from all responsibility in the matter; as if a penalty or a fine would make that right which was immoral in itself; as if their narrow notions could impose rules of conduct on the physicians who would regard them as impertinent, and consequently to be disobeyed; as if the public had no interest in having contagious diseases cured, and would patiently continue their contributions to the support of these institutions, while both guilty and innocent were held up to ignominy, and the peace of families destroyed by the exposure of their illnesses, which such distinctions would cause.

It is time that we had made up our minds on this subject, and if it is immoral to treat prostitutes with venereal diseases, let us say so at once; let the miserable victims die, and never allude to the subject again. But if it is right to treat them, let us do so efficiently, and not suffer our minds to be swayed by the ever-recurring questions of conscience, which weaken the will and render the execution feeble. We ought to act in this matter with the good sense and resolution we would in any other business, and crush it out in its origin, as we did the cholera.

It is the duty of the Board of Health to take cognizance of everything that endangers the health or lives of the people, and in reply to the Legislature, who have called for information, to say that nothing imperils it more than the prevalence of venereal diseases among all classes. Private individuals may hesitate to volunteer their opinions, but a public body like the Board of Health can properly urge upon the Government of the State the necessity of enactments to give legal authority to measures which are demanded for the eradication of venereal diseases.

For this purpose we would suggest: First, That it shall be the duty of all hospitals and dispensaries in the metropolitan health district which receive pecuniary aid from the State, Cities, or Counties, to receive, treat, prescribe for, and dispense medicines to all persons afflicted with venereal diseases, on the same terms as persons afflicted with other diseases, without any exceptions, distinctions, or charges, founded on the nature of such diseases.

That all keepers of houses of prostitution and assignation shall be registered; so shall all prostitutes who live in these houses; that these registers shall contain their names, ages, nativities, and whether married or not.

These registers shall *not* be open to public inspection. The owners of all houses of prostitution shall be also registered.

In case any woman shall gain admission into a house of prostitution, the fact is to be announced to the public, and the police shall not allow such woman to remain in such house unless she is a registered prostitute.

That the Metropolitan Board of Health shall establish a hospital for prostitutes affected with venereal diseases, and shall appoint physicians for the same, the custody of such hospital to devolve upon the police.

That the Board of Health shall cause to be inspected the houses and persons of all prostitutes, and if any prostitute is found diseased with any venereal affection, shall send her immediately to the hospital.

To carry out these measures, and to provide the means for

the support of the hospital, also to establish regulations which shall enable the police to compel obedience in case of resistance, must be left to the wisdom of the Legislature.

By subjecting the owners of houses of prostitution to registration, it is believed that it would compel the owners of houses to have regard for the character of their tenants, and prevent the sub-letting of them for infamous purposes. The publicity given to their names would prevent many from renting these houses who now do so with an eye to profit, because it can be done secretly. Registration would also enable the police to close many houses of assignation, which are the schools in which young women begin a career which ends in prostitution. It would prevent, in great measure, the meeting of married women in these houses, for they would fear the watchfulness of the police, and dread the public exposure which might follow.

By inscribing upon the registers the names of the keepers of houses of prostitution, and of the prostitutes, it is probable that their dependence upon the police would be felt by them, and that they would be induced to behave decently without public scandal.

The fear of a long detention in the hospital will compel them to confess their maladies early, and thus not continue their vocation until obliged by aggravated disease to stop.

Thieves and all sorts of malefactors constantly resort to houses of prostitution, and the women there are often thieves themselves. The registration and supervision of them will tend to make them behave honestly and deter them from robbing those who visit them. Being personally known to the police, they can be held responsible for their conduct. Drunken men, and young men just escaped from boyhood, are often found infatuated enough to squander their hard-earned wages of their estates upon these women. The increased facility of detection would serve to prevent these crimes.

Registration will enable parents to trace their children, and in some instances to reclaim them, or in case property is at stake it will enable those concerned to know whether they are living or dead.

The books which contain the names of the registered housekeepers and prostitutes should never be open for public inspection, because the peace of many respectable families would be destroyed by the secret contained in them.

By obliging the housekeepers to report the women who demand admission to their houses, it is believed that the debauching of young girls, often mere children, will be prevented. The police could take charge of them, and also of those women who, having recently fallen from virtue, and who are not utterly ruined, in despair rush to these houses, to embrace the life of a prostitute. The police could arrest them in their career, give them time to reflect, and the Moral Reform society and their kindred institutions could interpose their good offices, restore them to their families, or by gentle words, friendly counsel and protecting care, raise their hopes and lead them to a better life.

The greater freedom from disease, caused by the early medical care given to the prostitutes, might lead the depraved to prefer them to all other women. It may be so, but it would have this good effect, to lessen the demand for those women who frequent the houses of assignation to practise debauchery secretly.

It will be perceived that we have chiefly recommended our measures which seem to be best calculated to eradicate the venereal diseases. These are:

1st—To oblige all hospitals and dispensaries which receive pecuniary aid from the public to treat venereal diseases.

2d—Registration of prostitutes, etc.

3d—Hospitals for prostitutes.

4th—The sanitary inspection of prostitutes.

These, or something suitable as these, must be at the foundation of the proposed reform. The remarks made are intended to be explanatory of their effects. We know that we have not covered the whole subject of control or medical supervision. This must be the work of the legislature. Much must be left to persuasion and to the influence of public sentiment, which we believe is earnest in its demand that prostitution shall be restricted and controlled.

WILLARD PARKER, M.D.,
JOHN O. STONE, M.D.,
JAMES CRANE, M.D.,
} *Sanitary Committee.*

SUPERINTENDENT KENNEDY'S REPORT.

From the reports of the various police captains, made to the superintendent on the 27th of January, the facts relating to prostitution in this city appear as follows:

	1867.	1866.
Houses of prostitution	560	621
Houses of assignation	90	99
Saloons with waiter girls	38	83
Number of public prostitutes	2,574	2,690
Number of waiter girls	336	747

In Brooklyn, there are but six public houses of prostitution, and three of assignation; only fourteen public prostitutes. The difference between New York and Brooklyn is not to be accounted for in the superior virtue of the latter city, but rather in its contiguity to New York, which allows its debauchees to riot here, while their city home is apparently unpolluted.

It will be seen that within the past year there has been a decrease in the number of prostitutes, etc.; but it will tax the credulity of many persons to believe that the figures, as given above, are correct, and still more, perhaps, to hear that in the Eleventh Precinct, which contains 90,000 people, there is not a house of prostitution reported.

Before the war, in January, 1861, there were about 2,100 prostitutes in the city. In January, 1863, there were only 1,600 to 1,700. This diminution was caused by the number of professional prostitutes who followed the army to the war. When the war closed, in 1865, these came back with their numbers considerably reinforced, swelling the figures, as reported in 1866, to 2,690.

Correspondence.

ONIONS IN INTERMITTENT FEVER.

Louisville, K'y., *Feb. 14, 1867.*

Dr. N. S. Davis:—

Dear Sir:—My attention has been called to a simple, and supposed effectual, remedy for arresting the chills of miasmatic origin. I was consulted, last summer, by Mr. H., for chills; he had had them for several weeks. I gave him a prescription, which soon controlled the disease for a short time; after which the chills returned at regular intervals. He being averse to taking medicine, wished to try a simple remedy before taking any more from me. When he felt the chill coming on, he went to his room, undressed, sliced a large onion, rubbed his chest with the pieces, and then went to bed, covered up warm, and was soon in a perspiration, having no chill nor fever. He repeated the operation as often as he felt the chill approaching, and it checked the paroxysm every time, and removed them entirely after the third application. I gave the subject but little attention, thinking it was a spontaneous cure.

Yesterday, my attention was again called to the subject, by a gentleman of undoubted veracity. He informs me that he has broken up the chills on two of his children. One case had resisted all the treatment given by a physician, after which the onions were tried. They were beaten to a pulp and bound on the wrists and soles of the feet, one hour before the time of the expected chill. In one case, the chills never returned after the first application; in the other, it returned in fourteen days, when the onion was again applied; since then, the chill has not returned. He also informed me that he had tried the onion in seven other cases, with the same result.

It seems to me that this is a subject worthy of investigation, simple though it be. Here are ten corroborative cases, the paroxysm in each having been arrested in the cold stage, and the periodicity broken up in all. It will be seen that the mode

of application was different: in my case, the juice was applied to the chest; in the others, the onion was applied to the extremities, yet the result was the same. It is hardly probable that the onion would be applied in all the ten cases at that time when nature was about to free the system of the offending difficulty, independent of remedial agents. If not, then the onion is the cheapest and best antiperiodic of the materia medica.

I have called your attention to this subject, not knowing whether it has been investigated by the profession, or not. I have used the onion for the last seven years, in the early stages of infantile pneumonia, with the happiest effects. I was called to see a child last night. I found it breathing short and laborious; uneasy and restless; crying or groaning at every breath; with a hacking cough. In auscultating, I found a crepitus over a portion of the right lung. I had onions pounded fine, and covered the right side of the chest with them. They were quieting and soothing, and the child was asleep in half an hour, and breathing comparatively easy. This morning the child is doing well. I do not know where I got the suggestion for the use of the onion in these cases, except from some of your lectures.

I hope you will pardon me for encroaching upon your time, to ask you to read a letter on what may be to you a familiar and exploded subject. Yet, I am sure that I have never tried any remedy, in the early stages of pneumonia of children, that has given me as good and immediate results as the onion. Hoping that the onion may prove to be as effectual in intermittents as its advocates claim, I remain, Yours, truly,

A. GIVEN.

Reopening of the Knoxville, Tenn., Deaf and Dumb Asylum.—The Knoxville (Tenn.) Asylum for the Deaf and Dumb has been reopened after a five years' suspension. It was occupied during the late war as a hospital by both contending forces in succession. As the "Asylum U. S. General Hospital No. 1," it achieved no little reputation during the campaign in East Tennessee.

Selections.

ON RETROGRESSIVE MOTIONS IN BIRDS PRODUCED BY THE APPLICATION OF COLD TO THE CERVICAL SPINE, WITH REMARKS ON THE USE OF THAT AGENT AS AN AID IN PHYSIOLOGICAL INVESTIGATIONS.

By S. WEIR MITCHELL, M.D.

At long intervals during several years, I have made use of various degrees of cold as a means of research in experiments upon the nervous system, and, especially, its central ganglia.

Until recently I have been unable to control it, so as to secure from its employment all the advantages which at one time I was led to look for.

Of late, however, the interesting and valuable method of causing local anæsthesia by cold, invented by Dr. B. W. Richardson, of London, has enabled me so to improve upon the plans which I formerly followed, so as to lead, in one direction, at least, to results of the utmost interest, and I believe of entire novelty.

Were my time completely at my own disposal, I should have preferred to wait until I had developed and explained these results more perfectly to my satisfaction. Unfortunately I should have been obliged in this case to await the return of another summer, and I have therefore thought best to lay before my fellow-workers, in this branch of science, the conclusions already attained; trusting to them and to my own future labors to complete what I have in part effected.

Various methods have been made use of to study functions by injuring or destroying the organs to whose integrity they have been supposed to owe their existence. For this purpose mutilation or ablation has been employed. In other cases poisons has been given to abolish for a time the action of those portions of the centres or nerves upon which certain drugs have been thought to exert an influence. This latter mode is even more uncertain than the one about to be proposed, and has besides obvious inconveniences upon which it is hardly necessary to dwell.

During the spring and summer of 1863, Dr. Morehouse and I engaged in a prolonged research on the cerebro-spinal fluid, and the influence of pressure in producing convulsions. In the

course of these experiments the following observations were made. As I was led by them to engage in the experiments which are the subject of the present paper, I think it best to copy them at length from my note books. I am the more willing to do so, since they possess an interest in themselves, and are, I believe, rather novel in character.

Experiment 1.—June 6th. Large rabbit cut down in middle line, and made a minute opening through the membrane which fills up the occipito-atloid space.

A tube twelve inches long, and two millimetres wide, open at both ends, was drawn to a point at one extremity, and expanded funnel like at the other. The lips of the small end were rounded carefully and made to flare outwards a little. This extremity was then slipped through the hole in the membrane which it accurately closed, when drawn gently outwards, so as to bring the flange of the tube against the inside lip of the opening. The tube was then held upright, and water temperature 66° F. was poured into its upper end. It was possible in this manner to pour into the tube, and through it, into the spinal canal, at least *half an ounce* of fluid. At a certain point, usually when there was a pressure of ten inches in the tube, convulsions ensued and checked the experiment.

The injectment thus made, displaced the blood in the spinal vessels, and caused bleeding from any exposed veins of the cord or head. Died next day. Medulla oblongata softened.

Expt. 2. In two rabbits we repeated this observation, injecting water at 100° F., when the largest amount was borne before general convulsions took place.

Water at 120° F. Less pressure was borne and convulsions came sooner. When water at 32° F. was employed we found that the spasms followed almost instantly upon the introduction of the first few drops of fluid.

The convulsions which ensued were very remarkable. The animal rolled, turned, leaped, shivered, and in fact exhibited every variety of convulsive action in remarkable perfection. This effect seemed to be due to the direct influence of cold on the medulla oblongata, since like effects were produced when a morsel of ice was laid gently upon that organ, or when it was exposed and iced water was dropped upon it.

This very striking experiment led me at a subsequent time to test the possibility of suppressing the functions of central ganglia by the use of cold.

It is scarcely necessary to do more than allude to the attempts which I have made to effect this end. At intervals

during the summers of 1863 and 1864, I made many applications of ice and ice and salt in bags, to the spines and brains of rabbits, Guinea-pigs, and kittens. Nearly all of these experiments failed to give striking results. In some cases, as where I tried to freeze the part without removing the overlying tissue, no marked phenomea ensued. In others, where I placed the freezing mixture on the bony spine itself, or on the head, feebleness alone was produced. In no instance did I make use of birds until the spring of 1866, from which time my present experiments date.

At the period last referred to, it occurred to me to try whether Dr. Richardson's application of the atomizer to local anæsthesia might not enable me to effect the purpose in which I had previously failed. I also reflected that birds might answer better than quadrupeds, on account of the thinness of their skulls, and the comparative isolatson of some of the central organs—such as the cerebellum, and the optic tubercles. On the other hand, birds offered an embarrassment in the high temperature which their bodies present, and which, of course, makes it difficult to freeze any portion very deeply. The heat of the pigeon, for example, is frequently nine degrees above that of man.

Notwithstanding this drawback, the change in the animal used, and the employment of Richardson's method enabled me for the first time to get satisfactory results. Among the most striking were those which I obtained while attempting to freeze the necks and heads of pigeons, and it is these which I propose here to relate at length.

The method in this research was much the same in every case, and will exact very little description; Richardson's atomizer was necessary when ether was used. In general, however, rhigolene was employed with the aid of a cross jet of air—such as is made use of in atomizing water. This is mentioned particularly because the form of apparatus which is best for ether does not answer so well with rhigolene.

In some instances the atomized fluid was thrown upon the skin, in others on the bony case of the nerve-centres, and more rarely on the nerve substance previously laid bare, or merely guarded by a thin patch of caoutchouc. The animals employed were pigeons, chickens, rabbits, cats, and frogs.

Expt. 3.—June 29th, 1866. I threw a jet of rhigolene upon the back of a pigeon's head. The time not stated in my notes. He shivered towards close of freezing. When released he walked away, shook himself, cleaned his feathers and bill, etc.

In one minute he began to move backwards suddenly, as if by his own will. Before each motion of this kind he squatted close to the floor, and as he began to move, threw his tail up and his head down, and to one side. The series of motions had the appearance of a spasm. In the intervals he sought a corner, and sank into a stupid condition, or else walked about as usual until either a backward motion overtook him or he fell anew into stupor. From this he was easily aroused, and was then to appearance in full possession of all his faculties. The backward movements at length became visible only as sudden checks which overtook the pigeon now and then while walking forwards.

This experiment offered certain novel and curious facts. The delay before any noteworthy phenomena were seen, the sudden onset of a strange form of convulsive movement, the state of partial stupor apt to follow, and finally the healthy appearance of the animal in the interval, reminded me of the symptoms of certain epileptic cases, and made me hasten to repeat the observation.

Expt 4. Same pigeon frozen two minutes a little lower down, so as to more exactly influence the cerebellum. Released he walked away, well and strong, pluming himself, and picking his breast, a common motion. Within twenty seconds the first backward motion took place; at the same time an increasing difficulty of movement overtook him. He walked as if drunk, lifting his legs very high, in a curious fashion. Five minutes from the freezing he still had frequent backward motions, which gradually lessened. At the tenth minute he began to exhibit the attacks of stupor.

Expt. 5. Used rhigolene over the cerebellum of a young pigeon for about four minutes. Released, he could not stand, but rocked to and fro, and threw himself from side to side with general movement of all the muscles, but no orderly execution of any series of movements. Second minute, ran forward naturally for the first time; tried to fly through the window, and uttered the cry common to young pigeons. At the third minute he began to turn somersaults backwards, and did so for half a minute, when he stopped a moment, and again continued to turn over backwards. Then came a period of stupor, broken at the fifth minute by continuous backward turns. He still cried at intervals, and the somersaults gave place to backward movements which were very rare, when at the ninth minute I ceased to observe the bird. Three days later the pigeon was perfectly well, except that he had a small slough over the most prominent point at the back of the skull.

Up to this time I had seen nothing very novel, excepting the temporary creation of spasms, such as in some shape were known to occur when the cerebellum was mechanically injured. The following experiment opened a newer field:—

Expt. 6. A pigeon whose cerebellum had been previously frozen many times was chilled on both sides of *the neck* during one minute by a double jet of rhigolene, at the level of the tenth cervical vertebra, just above the junction of the neck of the body. When released, he became at once the sport of violent general convulsions. They were very complete, and offered no other striking character for a few moments; then there were occasional backward somersaults, or an effort in this direction. At the second minute the backward walking motion began to be seen, as the general spasms and the somersaults ceased. The stupors also appeared, and alternated with the runnings backward until within an hour the animal gradually recovered its usual health.

If the results above noted had followed the chilling of the cerebellum only, I should have been little surprised; but nothing in our previous knowledge of physiology led me to look for general convulsions or backward spasms from injury to the spine below the medulla oblongata. After witnessing this remarkable result I repeated the experiment again and again upon a number of pigeons, with precisely the same results, sometimes obtaining backward somersaults, and at others only retrograde movements, alternating with periods of stupor and intervals of apparently full control of all the normal movements.

At another part of this essay I shall describe more minutely the character of these abnormal motions. At present, I pass on to consider the limits of the region which, being chilled, will give rise to them. I began at the cerebrum and made the following experiments, which I briefly state:—

Expt. 7. Pigeon previously frozen several times, but now perfectly well. Rhigolene spray on skull over cerebrum for four minutes, guarding the cerebellum with a card, and also preventing, in a similar way, all inhalations of the vapor, a precaution which was taken whenever the freezing was near to the head. Released at 6.44½. His head rolled about a little. His general movements were uncertain, and he walked away, seeking a corner. One and a-half minutes. Continuous backward somersaults, with short intervals of rest and stupor. Sixth minute. Same phenomena. Observation ceased.

Expt. 8. Rhigolene on cerebral region three minutes. Pigeon in a state of profound sleep or stupor. Third minute after

freezing head falls, eyes closed, weak, falls sideways, but soon tries to walk, and seeks a corner. Fourth minute, stupor, roused by falling over. Occasional spells of like nature, but less marked, and further apart. No backward movements at any time.

Expt. 9. Exposed cerebral lobes of pigeon; no bleeding; drew skin together over the brain, and threw rhigolene jet on it for one minute, freezing it as hard as ice. Set free, he flew straight up into the air one or two feet, again and again for three minutes; then had spells of vehement forward movement, during which he stumbled, with his neck bent forward, eyes shut, not directing his steps, and running against any obstacle put in his way. In four minutes he became more conscious, tried to fly out of window, and suddenly fell into stupor, from which a push aroused him. Eighth minute. Backward walking spasms for eight or ten steps at a time, varied with stupor. Nearly well at twelfth minute.

Expt. 10. After an hour froze the exposed cerebrum of same pigeon one and three-quarter minutes. Asleep; awakened somewhat in ten seconds, and had slight general convulsions. First minute, intense forward flexion of neck. Attempting to move forward he falls on his side; alternate sudden forward rushing motions and backward walkings, the latter predominating. Fifth minute. Backward motions only, but well marked. Recovery at seventh minute.

In these and similar experiments I sometimes succeeded in abolishing for a few moments the cerebral functions, and causing deep sleep. In one case the freezing went so deep as to influence the region of the copora striata, occasioning the violent forward movements which Magendie originated by ablating these parts.

Besides these phenomena, backward motions were sometimes observed, but they were never so violent as when the cerebellum or spine was directly attacked.

Since it is practically very difficult to limit the freezing so as to be sure when you freeze the cerebrum that you do not also chill the cerebellum. I am inclined to suppose that the backward motions which occur when we are acting on the former organ may really be due to an affection of the latter; at all events, it is well to remember that in the experiments here related, and in other like attempts to freeze the cerebrum, I have but once seen the backward somersaults, which are the most remarkable exhibitions of this form of compulsory activity. There is, therefore, some reason to suppose that the cerebrum is not the centre from which proceed these singular impulses.

It was next desirable to know what parts of the spinal column, upon being frozen or chilled, may give occasion to the phenomena in question.

I began by throwing rhigolene upon the skin over the medulla oblongata. The principal symptoms were great weakness, with confused movements of the wings and legs, feeble and laborious breathing, and, after a few minutes, backward walking, with rare attacks of stupor. As the part lay deep, it was difficult to avoid chilling the cerebellum. The following experiment may serve as a type of the larger number, which it is needless to report:—

Expt. 11. Rhigolene on skin over medulla oblongata for two minutes, the skin being drawn tightly over the spine, and the head bent forward. Released, very weak, tendency to fall to left side, shivering, feathers ruffled; on walking forward tends to fall on his bill. Third minute. Begins to show backward motions. Fourth minute. Repeated backward movements. Seventh minute. Increased feebleness, backward spells, gradual recovery, with rare fits of stupor.

In the next experiment I laid bare the bony spine just below the medulla oblongata, and threw on it a jet rhigolene, during three minutes. Released, lies on one side, breathing feebly, unable to move, pupils sensitive, reflex motions in both legs on pinching one of them. Second minute. Put on his feet, rocks to and fro, breathing more labored; gradual improvement with fits of deep stupor. Twelfth minute. Backward movements alternately with stupors; slow recovery.

Expt. 12. Rhigolene on neck, half an inch below medulla oblongata at third or fourth cervical vertebra three minutes. Backward spells at third minute, with incessant somersaults; previously ran about as if well; stupor; tried to enter his cage. Plumed himself. Fifth minute. Somersaults ceased, and are replaced by backward walking, varied with stupors. Recovered.

Expt. 13. The skin in this pigeon was drawn tightly over the spine, and a double jet of rhigolene thrown on the tenth vertebra for two and a-half minutes. Released, he ran about, apparently well. Twenty-fifth second. Marked backward spells, which were incessant until the fourth minute, when he had stupor, followed by confused general convulsions and backward walking. Fifth minute. Backward somersaults, etc. Recovery.

The spine was next acted on at the third cervical vertebra, with the same phenomena. In a second experiment at this same point a double jet was used. The feebleness and disorder

of respiration were more marked, the stupors and movements were as before. Recovery perfect in both cases.

The next experiments were made at points between the middle neck and the first fixed vertebra, which itself lies a little back of the upper line of the scapula. In every case I obtained the usual series of backward movements, stupors, and intervals of perfect control. I find that no somersaults are noted in connection with these records, but as they occurred when the spine was chilled below this point, the exception becomes unimportant.

The upper interscapular line is marked by a prominent vertebra, just below which lies the first fixed portion of the spine. In a well-grown pigeon it is at least three and a-half inches below the lower level of the skull. Beneath this point the backward spells can no longer be obtained by any extent or depth of freezing.

The following notes relate one out of many experiments in which the jets of rhigolene were thrown exactly between the shoulders:

Expt. 14. Rhigolene jet four minutes on first fixed vertebra, at upper level of interscapular space. Released, he ran about, and in fifteen or twenty seconds sank down, shivered, and ran backwards repeatedly; during the quiet intervals he attacked another pigeon. He was next seized with stupor, then another series of backward spells, and again stupor, after which he once more assaulted the other pigeon. Recovered.

In other experiments I guarded the spine with my fingers above and below the frozen part, but still obtained, in nearly every case, the retrograted motions and the stupors.

Expt. 15. Froze skin with rhigolene jet one-half inch below prominent interscapular vertebra, at level of second dorsal vertebra, for four minutes. Released he walked away briskly; in half a-minute crouched, showed signs of weakness; has spells of stupor, which come on gradually, so that if he is on a perch he falls off, and is aroused by falling; well in the intervals, except that he seems weaker than common. Observed one hour, when he was well, having no longer any backward spells.

Expt. 16. Rhigolene jet four minutes on spine, half inch below first fixed vertebra. Ran about as usual; appeared agitated and restless, and weak in his legs; no backward spasms, no notable stupor.

Expt. 17. I next threw rhigolene jet on the spine, one inch above the line of the great trochanters of the femur, a point easily found. It is at the upper level of the sacrum. Froze

during four minutes. Released, he ran about clumsily, tripping, intertangling his legs as he moved, and using his wings to aid progression. The movements were so futile and irregular that they presented much the same appearance as when the cerebellum has been frozen deeply or removed by the knife; no stupor, but occasional tendency to rest quiet in a corner; no backward impulsion. Recovery.

Expt. 18. Rhigolene jet thrown for four minutes on spine, *half* an inch above line of trochanters. Clumsy motions, great feebleness of limbs, walks crouching, now and then falling on his side. One and a-half minutes. Sank to rest in a corner, shivering; tremor of legs, especially the left leg; no backward motions or stupors. Recovered.

Expt. 19. Rhigolene jet on spine four minutes, at the last dorsal and first lumber vertebra, over the place at which the nerves of the legs make exit. Sudden and violent tetanic spasms of both legs and the tail, during which he fluttered about with the aid of his wings. At the third minute the spasm relaxed, and in four and a-half minutes he could walk; he remained feeble for a time, but in an hour was as well as usual.

It results from these experiments and others that at or about the fourteenth vertebra counting from above downwards, we cease to notice the backward spasms and stupors, and see only signs of weakness or of tetanic rigidity in the legs; usually these phenomena come on some time after the freezing, and reach a maximum within ten minutes.

It appears thus far that in pigeons the application of cold to the cervical spine occasions, after a brief period, peculiar backward movements, resembling those which have been previously produced by mechanical injury of the cerebellum. These abnormal actions are, in extreme cases, backward somersaults, followed by spells of backward walking, and accompanied with spasmodic movements of the head, to be fully described hereafter. In milder cases only the backward walking occurs. Both of these forms of constrained movement are met with when the cerebellum has been chilled. A further series of experiments determined that it is immaterial whether the spine be acted on behind, at the side, or in front. In fact, this organ in the pigeon is so small in diameter, and the freezing so difficult to limit, that we might naturally look for the spasms to follow an application of cold to any side of the spine.

It is indifferent whether we freeze through the skin drawn tightly over the bone, or act on the bare nerve-tissue itself.

The following is an example of the latter mode of affecting the nerve-centres:

Expt. 20. Exposed spinal cord of pigeon at fifth cervical vertebra, without hemorrhage of any moment, covered it with a small piece of glazed paper, and threw on this pulverized rhigolene jet for twenty seconds. Released, the bird lay twenty-five seconds breathing heavily, as if about to die, and was then suddenly seized with violent backward somersaults, which were continuous during one minute. They were followed by and finally alternated with fits of stupor, the whole ending in backward walkings. Recovery.

I was now interested to know whether the same results could be obtained by chilling the spine of other birds. For this purpose I selected the chicken, making the following very remarkable observations:

Expt. 21. Exposed bony spine of a large chicken-cock, and for five minutes threw jet of rhigolene upon it, at a point about three inches below occiput. Released, he walked away without any signs of stupor or sickness. In a minute he stood still, looking about him as if confused. At the second minute he began to move backwards, rotating to the left, with long, slow, and strangely deliberate steps. The rotation seemed to be due to a feebleness of the left leg. He moved in a circle of about two feet in diameter, and now and then leaped up in the air abruptly. His head was not thrown down as was always the case in pigeons, and the action had none of the appearance of spasm which it presented in that bird. After five minutes continuance of this most extraordinary motion, his steps became more awkward and irregular, as well as more rapid and spasmodic, but he now ceased to move in a circle.

At the seventh minute came the first pause, and his attacks were henceforward separated by intervals, during which he walked as usual. As the spasm came on, he slowly stooped, drooping his tail feathers, and raising his head. He seemed to have difficulty in extending his toes, which doubled under him as he stepped, and increased the awkwardness of his gait. After twenty minutes his spasms ceased.

Repetitions of this experiment gave like results, and in one case the backward movements were produced by the application of the rhigolene jet during only thirty seconds.

I have totally failed to produce these curious fits in the rabbit, the only mammal upon which I have as yet experimented.

The following analysis of observations on rabbits exhibits my results in this direction:

Expt. 22. Froze the bared occiput of young rabbit two and a-quarter minutes. The only symptoms were feebleness, and signs of pain, such as squealing, etc.

Expt. 23. Froze same point four and a-half minutes. Fell on side; kicked a good deal; apparent temporary want of power to coördinate his muscles; walked freely after a few minutes.

Expt. 24. Froze rabbit on spine five and a-half minutes, an inch below occiput. Released, he lay kicking violently half a minute, then rose to his feet, and fell, kicking again. Finally, he rose and fell several times without kicking, and, at length, was able to walk freely. Recovered in half an hour.

In all the other cases, four in number, I observed disordered movements, and, at the close, great weakness only.

The failure to produce in rabbits the results so readily obtained in birds appeared to indicate some previously unsuspected differences in the nervous systems of these two classes of animals, and made me desirous to see whether I should succeed any better with cold-blooded batrachians. I therefore made a number of experiments upon frogs, but without the satisfactory results I had hoped for. When the rhigolene jet is thrown upon the region of the brain, the functions of this organ are abolished for a time, and the frog exhibits the phenomena which are common to this animal when decapitated. A jet cast on the spine occasions spasmodic movements of the legs, and, at intervals, violent tetanic contractions. After a few minutes the frog is able to crawl, but does not recover the power to leap, its usual mode of locomotion, until a longer time has elapsed. Recovery is always perfect, and there are no backward movements.

When the jet is thrown on the back of the prominent eyeball, the posterior tissues of the eye are frozen without the cornea having become dim, and in this case very perfect temporary cataract is produced.

The real seat of the backward impulses in birds would seem to be at any point from the lowest cervical vertebra up to the cerebrum, whose power to originate them is at the least doubtful. Two facts, or sets of facts, led me to think it possible that it was in every case the cerebellum or the medulla oblongata, which was the organ finally responsible for the production of the spasms of retrograde motion, which we have been considering.

The first of these facts is the well-known and valuable discovery of Brown-Séquard, that in Guinea-pigs mechanical in-

jury of certain regions of the spinal cord, from the seventh dorsal to the third lumbar vertebra, subjected the animal to fits of an epileptiform nature, which might be induced by various means, or might arise spontaneously. Moreover, these spasms began about the face, so that the spinal wound (partial section) must have produced an over-excitable condition of the nerve-centres above the point of injury.

In my pigeons, likewise, the spasms began with a flexing of the neck, etc., so that it is altogether possible that in these animals also the spinal irritation may act by causing an undue excitability of organs within the skull.

Before continuing, it may be as well to state that I do not recognize any other relation than I have here pointed out between Dr. Brown-Séquard's very brilliant discovery, and that which I am now setting forth. The fits he caused came on after some weeks had elapsed; they were seen in Guinea-pigs; they were due to mechanical injury to the dorsal or lumbar spine only, and were finally epileptiform, in all of which respects they differed from the novel facts I have observed.

The second set of facts, above alluded to, has also made me hesitate in assigning to the point of the spine injured by cold, the entire responsibility of producing the retrograde spasms.

Magendie pointed out what many other physiologists have since seen, that certain deep injuries of the cerebellum, especially in birds, gave rise to backward somersaults and movements, which were very violent, and were sometimes continuous for days, or were interrupted only for a few moments, when exhaustion was complete.

The spasms caused by cold applied to the spine were also of this retrograde nature, and I was therefore furnished with an additional motive for suspecting that they might really be due to a reflex affection of the cerebellum.

To determine the relation between backward spasms originating in mechanical injury of the cerebellum, and those due to chilling of the spine, I made a large number of experiments and observations. And first, it is to be observed, that when we chill the cerebellum, we cause convulsive movements which cannot be distinguished from those which occur when we chill the cervical spine. Either the whole of these fits then are referable to one single organ, the cerebellum, or else there is in the pigeon an extensive region, at least four inches long, and stretching from the cerebral mass to the first dorsal vertebra, any portion or section of which is capable of developing the retrograde convulsive motions when treated as I have described.

Backward somersaults and enforced backward walking from mechanical injury to the cerebellum, differ very remarkably from those produced by cold. The wound of the cerebellum must be deep to give the proper effect. The result is violent tumbling backwards, or sideways and back, with little or no respite, and certainly with no intervals of healthy activity. The spasms from cold, though often as violent, do not endure so long. They end in backward walking, and this in perfect health. I have caused them by the application of cold to the spine twenty times in one pigeon, within a few days, and still he not only survived, but ate, drank, and moved with usual vigor. Besides this, the spasms from cold alternate with attacks of stupor, in which the head falls, the eyes are shut or open, and the pigeon seems to be in a kind of lethargy. When in this state it may often be handled, or laid on its back or side, without an effort at resistance, while at any moment a loud sound or sudden motion will break the spell, and it will abruptly run backwards several feet. It was very remarkable to observe the mode in which the stupor came on. If the pigeon was on a perch or window-ledge, its head gradually fell, the body swayed backwards, and at last the feet unclasped, and the bird fell on the floor.

In the chicken the stupor was sometimes so deep that it could be held passively suspended by one foot or a wing.

The intervals of healthy activity between the times of stupor present no marked phenomena to distinguish them from the common state of the pigeon.

There are some other differences between the spasms from chilling the spine or cerebellum, and those from wounding the latter organ. In cerebellar injury the head is carried well back and high up. During the somersaults it is drawn further and further back, until the bird rolls head over tail.

In the spasms from chilled spine or cerebellum, the head is carried at ease during the intervals between the fits; but at the moment of attack the bill strikes the floor quickly, first on one and then on the other side, the head being drawn violently forwards. Even in the most terrible of the somersaults caused by cold, the head was drawn forwards, and the backward turn was produced by the action of the muscles of the legs and wings, rather than by those of the back, neck, and spine.

It remained to determine if, when the cerebellum was severely injured, or ablated, I could still obtain the typical backward spasms on freezing the spine.

I found that when the cerebellum was partially injured, so as

to occasion turning, or backward somersaults, that an after application of cold to the spine, would introduce into the convulsions rare attacks of the peculiar form of retro-spasm, which were characteristic; that is to say, the pigeon would retreat, with first a spasmodic flexion of the head and neck.

When I ablated the cerebellum, so as to produce utter want of coördination, I always failed to secure the display of any backward motion, upon afterwards chilling the spine. To settle this question more thoroughly, it will be necessary to ablate the cerebellum, and keep the pigeon until it recovers the power to control its movements, as does sometimes happen.

If then it should continue to have retro-spasms upon freezing the cervical spine, we might reasonably conclude that these spasms do not exact the interference of the cerebellum—a question which, after all, I should not have thought it necessary to raise, if the peculiar retrogressive nature of the fits had not pointed to this organ, for, up to this time, as I have stated, no other has been known to possess the power to originate this special form of convulsive action.*

At present, therefore, I cannot attribute the spasms from cold to the spine alone; and, indeed, I feel strongly inclined to regard this organ as merely the point of departure of a morbid excitation which is finally translated, so to speak, by the cerebellum, into a language of its own, and thus occasions a peculiar form of compulsory movement.

While considering, in this connection, the whole train of symptoms which follows the use of cold on the spine, there is still left for consideration the state of stupor to which the animal becomes liable when so treated.

This sympton is often slight in character, but is sometimes so well marked that it resembles the deepest sleep, and even approaches the condition of coma. It then becomes plain that this is a state of system in which the cerebrum is affected, and for a time loses its functional activity. Of this there can be no possible doubt. As it was suggested, however, that the stupor might be due to the general depression of temperature caused by the freezing, I made numerous experiments to settle the question thus raised. For this purpose I chilled or froze muscular and other parts for five minutes at a time, but without obtaining stupor or spasms. Moreover, I found that both

* Elsewhere I have mentioned the medulla oblongata as having been supposed capable, when injured, of causing retro-pulsion. There is, however, some doubt on this point; but, at all events, my reasoning would apply to any organ in the head which might be presumed to have this property.

symptoms often continued unaltered, when the pigeon had regained its normal standard of temperature.

If, therefore, chilling the spine determines a marked *cerebral* disturbance, there is no reason why we might not assume, with logical propriety, that the *cerebellum* may be ultimately responsible for the backward spasms. Without being at all sure of this, I beg leave to offer the above considerations as casting some light on a point which I still regard as most obscure.

In dealing with this subject I have neglected to consider the possible share which the medulla oblongata may have in causing backward movements. Magendie considered that both this organ and the cerebellum were the seats of a normal forward impulsion. The corpora striata were, as he conceived, the centres of an opposite tendency, so that, when the two former organs were wounded, the balance was destroyed, and retrogression took place.

Apart from his theory—from which most recent biologists, excepting Vulpian, have totally dissented—it is enough to know that the medulla oblongata may give occasion to these motions, so that it is not impossible that the backward spasms which follow chilling of the spine may be finally referable either to this centre, or to the cerebellum, or to both.

I have never caused such movements by injuring the medulla oblongata, and the passage in which Magendie states the fact is a very brief one.* If, however, he be correct, and if chilling the spine can cause backward spasms by an indirect influence on higher nerve-centres, whatever I may have said in regard to the cerebellum is equally applicable to the medulla oblongata, or to any part whose direct lesion is known to produce retrograde spasms.

We have still to study the nature of the injury done to the spine or brain by cold applied through the skin or directly.

It was seen throughout my experiments, which have reached to ninety in number, that in almost every case an appreciable interval—and often a long one—existed between the close of the freezing and the access of the spasms. This period varied from a few seconds to twelve minutes. If there was any primary effect, it was merely feebleness, or disorder of movement. When I noticed these facts, I suspected at once that what is seen on the skin after freezing, repeats itself in the nerve substance. First, there is chilling and contraction of bloodvessels, and then actual freezing, which is rarely very deep. Indeed,

* Précis de Phys. Magendie, ed. 1836, p. 409.

I have found it most difficult to freeze the pigeon's entire breadth of spine. When this does occur in the upper cervical region, death by apnœa follows at once.

The freezing being over, the part thaws, and long-continued, intense congestion ensues, as any one may observe who will try the effect of the ether or rhigolene douche on his own skin.

It only remained to see if this congestion actually took place in the nerve-substance, as I suspected it must do.

To determine this point, I laid bare the cerebrum of a large pigeon, and carefully noted the color of the tissue, and the number and position of the chief vessels of the meninges. The jet of rhigolene was then used directly on the part. The visible vessels were instantly frozen, with their contents. As the part thawed, it became intensely congested, the brain darkening distinctly, and the vessels of its transparent coverings increasing in size and number, so that those which could before be seen were larger, and new ones, previously unseen, came into view.

This experiment was repeated several times, with no essentially different result.

In the last mentioned experiment I had preserved the cerebral meninges intact. On a second pigeon I repeated the observation, removing the membranes with great care. I found that several large vessels penetrating the brain from below, came to the surface, and were for the most part torn asunder in displacing the membranes. I chilled the bare cerebrum, covered with thin caoutchouc for half a minute. As it thawed, an intense congestion appeared, with numerous points of much deeper color. This condition increased during several minutes, but caused no notable disturbance of function.

In the spine of the pigeon I have thought I could see a deepened color after freezing, but of this I am not sure, owing to the small size of the cord. When, as I shall presently show, we act on this part by other irritants than cold, the resultant congestion is no longer doubtful.

The singular convulsions and stupors which I have described are therefore due, as I think, to the palsy of the vessels which have been chilled by the cold, and which may or may not have undergone previous extreme contraction. The congestion from cold, whether in the nerve tissue or the skin, is most intense at a certain time after the part has thawed, and it is then in the centres that the excitation becomes such as to determine a convulsive attack. These facts naturally incline me to regard the congestion as the essential parent of the nerve changes, which finally result in the spasm and stupor. We should not lose

sight, however, of the possibility of the nerve-substance being itself directly altered by the intense cold to which it is subjected. While, therefore, I consider the congestion which does certainly occur as competent in the case, it is well to remember that the nerve-cells may be most seriously affected during the physical changes of condition, which great alternations of temperature occasion.

My success in causing spasms and other phenomena by the aid of cold, at once led me to anticipate the most interesting results from this method of research, for, if it were now in our power to create in a nerve-centre such a congestion as should allow us to study its effects, and if passing away it should leave the animal in a state of health such as beforehand no one could have looked for, I could not but hope that most important results in the study of pathology might thus come within our reach.

Since, however, it was very difficult to limit perfectly the influence of cold, I endeavored to see if, by other means, I could reproduce the phenomena which cold had enabled me to discover. The production of the backward spells was a very good test. If they were due to congestion, irritants, such as heat and acids, alcohol, etc., should also occasion them by causing an increased flow of blood to the spine. Besides, the local congestion thus created would be manageable, and enable me further to control the phenomena for purposes of study.

After numerous experiments I succeeded in attaining the desired end, and in causing by irritants spinal congestion and backward spasms; that is to say, the same train of symptoms which succeeded the use of cold.

Expt. 25. The spinal cord was exposed in a pigeon's neck, and water, at a temperature of 165° F. was thrown on it gently from a syringe; about three ounces were used. Released, it walked away, and showed no notable immediate result. After half an hour, I repeated the observation twice, using again water, temperature 165° F., and lastly, temperature 190° F. The use of the fluid in fine stream may have lowered the temperature a little, but it certainly coagulated the flowing blood and the bared muscular tissue. Yet to my great surprise the only immediate symptom was a little weakness. The pigeon was observed for an hour, and again three hours later, but exhibited no enforced motions. It was found dead the next morning.

Expt. 26. I dropped strong ammonia on the bare cervical cord of a pigeon. It seemed to cause pain. The bird moved

about restlessly, and at last fell with enfeebled respiration, which became rapidly worse, destroying life in a few minutes after the application to the spine.

In this case the irritant was too strong and acted as a caustic. The effect of the heat (Expt. 25) I cannot explain, and will only observe that the observation was incomplete, as the pigeon was not watched constantly after the operation.

In the next observation I made use of tincture of capsicum as the irritant.

Expt. 27. The cervical spine was bared at the fourth cervical vertebra, and treated with six or eight drops of tincture of capsicum. I observed no results during two hours observation of the bird, except feebleness and uncertainty of gait. I had cut the posterior spinal vein in my dissection, and I was not sure how much of the symptoms might be due to loss of blood. The following afternoon, twenty-five hours later I reëxamined the pigeon. To my great satisfaction, it had marked attacks of backward motion, but no somersaults. It died forty-eight hours after the operation.

Expt. 28. Exposed cervical cord, at the fifth vertebra; dropped on it six drops of tincture of capsicum. As the capsicum was applied the long posterior vein of the cord, which I had exposed, but not cut, was seen to dilate suddenly, as though forcibly filled or paralyzed, and the cord visibly darkened, while a sudden hemorrhage disclosed itself on the edges of the incision. When set free, the pigeon was very unsteady, and rolled about on its feet as it walked; I then washed away the tincture with a little water and the aid of a pipette.

At the third minute, distinct backward movements were seen, with the usual dipping of the beak. At this time the spinal substance was intensely congested, but no distinct vessels could be seen. The backward movements occurred at intervals up to the seventh minute, when stupor took place. After this time the spasms took place mostly when the bird was roused from the stupor. This latter condition was not so profound as after the chilling, but lasted longer. After an hour and seventeen minutes he still had very violent backward motions, which continued for ten seconds or more at a time, when the stupor returning, interrupted them.

Twenty-four hours later this bird was well, to appearance, ate and drank as usual. The backward movements still continued, but ceased within thirty-six hours. At the end of a week the pigeon was well and active. It died five weeks later; but through an accident; no *post mortem* examination could be made.

It thus appears that the backward movements may be excited by agents, which, like tr. capsici, irritate, congest, and, perhaps, by virtue of the alcohol, chemically alter the spinal tissue. It is notable, also, that, as in spasms from cold, so in those caused by an irritant, the attacks appear only after an interval has elapsed, and are therefore not due to primary alterative influences, chemical or other.

I believe that I have made clear, in the foregoing paper, the following points: That cold may be made valuable as a means of studying the functions of nerves and nerve-centres; first, by chilling the organ down to the temperature, as yet undetermined, at which its functions cease. Secondly, by the congestion which follows, and which enables us to imitate at will a pathological condition, and thus to forward the synthetic study of neural disease.

With the aid of cold, and of the irritants which its use suggested, I have occasioned in birds, (pigeons and chickens,) a peculiar form of spasmodic or enforced movements, consisting in somersaults and sudden backward walking, such as have not been previously observed by physiologists, except when the cerebellum was mechanically injured.

I may be permitted to state, in concluding, that I regard as incomplete the research which I have described. Even the primary questions in connection with it are not all answered to my satisfaction, while so large a number of secondary points of interest have presented themselves as to make it quite unlikely that I should find time just know, among more pressing occupations, to give them the attention they will receive, I trust, from others than myself. Some, at least, of these investigations I hope myself to undertake at a future period.

In my present series of experiments I have been aided throughout by my friend, Dr. Wm. W. Keen, to whom I am much obliged for many valuable suggestions.—*Am. Journal Medical Sciences.*

THE PERMANGANATE OF POTASH IN THE TREAMENT OF CARBUNCLE.

By THAD. L. LEAVITT, M.D., Germantown, Pa.

The beneficial effects accruing from the local use of permanganate of potash in the treatment of sloughing ulcers, phlegmonous erysipelas, and hospital gangrene, having been most

thoroughly tested and proved during the last year of the war, in army hospital life, it occurred to me that its peculiar remedial qualities would alike prove successful in that most painful and distressing lesion, carbuncle, originating, as it also does, from a depressed vitality, and a morbific condition of the blood. The most satisfactory and encouraging results have been obtained in the only cases in which I have had an opportunity to employ it.

Mrs. R., *æt.* about 60 years, was visited, during the absence from town of her family physician, and found suffering terribly from a carbuncle located upon the left shoulder-blade, just above the spine of the scapula, and occupying the supra-spinous fossa. Loss of sleep, constant pain, and a naturally nervous temperament combined, induced a mental disturbance almost amounting to delirium. The tumor was in its sixth day, with all the general accompaniments, of the size of a hen's egg, tumid, tense, and shining. A free crucial incision had been made two days before, but with no relief; dense areolar tissue, puffy granulations, and sanious oozings crowded the track of the knife, with no appearance of separation or healthy action. The pulse was quick and compressible, 110 beats in the minute; countenance anxious and expressive of great pain; bowels regular. A strong solution of the permanganate of potash (ʒss. to fʒj.) was immediately applied with a brush, and a dressing saturated with it, covered with oiled silk, placed upon the shoulder. Anodynes, beef-tea, milk-punch, tincture of the chloride of iron, and quinia were administered. The same evening, the patient was again seen, and expressed herself as feeling much relieved; pulse 98, and gaining in volume and elasticity. The next morning, the dressing was removed, and already, although but twenty-five hours had elapsed, true pus had begun to form, the intense pain had subsided, and the patient, to use her own language, declared it "a miracle;" the pain had vanished, the fever was gone; she had slept well, and felt some appetite for food. A few days longer the potash was continued; the slough separated, and the wound healed in the short space of one week.

Mr. C., *æt.* 50 years, shoemaker; was visited July 30th, 1866. Had been sick three days, was found suffering intensely from a carbuncle, situated upon the abdomen just below the umbilicus, of the size of a large walnut, and involving the surrounding structures in an erysipelatous inflammation. Bowels constipated; high fever; pulse 120; heavy breath; tongue furred; anxious countenance; great restlessness and general uneasiness characterized his principal symptoms. Hop and

laudanum poultices had been applied, but he had been gradually growing worse, and approaching the condition described, the tumor increasing daily, the parts becoming more dense, and at last an ichorous pus exuded from several small openings. Mild purgation, after which supporting and stimulant treatment was instituted. A slight incision was made, and the permanganate applied, as in the previous case, the dressings being removed once in twenty-four hours. This case was seen seven days successively; the 13th of August he returned to his work, the severity of the suffering having been arrested after the first application.

Mrs. A., *æt.* about 49 years, having suffered a few days from a supposed furuncle, and the pain becoming intolerable, called in medical aid. There was found upon the inner face of the left thigh, just below the nates, a well-marked, though small, carbuncle; a very slight incision was made and the potash dressing used. No constitutional treatment at all was inaugurated; in three days all signs of carbuncle had disappeared, and the line of incision was healing nicely.

The results in this case were mutually gratifying, from the fact that about six years ago the patient suffered from a series of carbuncles, appearing in succession, along the spinal column, from the back of the neck to the region of the lumbar vertebræ, and, lasting all through the winter months, her dread and fear of similar suffering were very great. The permanganate of potash has been eminently successful with me in the treatment of chronic ulcers. The following case, of many years' duration, and which had resisted all efforts, yielded to the remedial properties of this preparation.

Arthur M., tavernkeeper, *æt.* 45 years, had a chronic indurated ulcer, of sixteen years' standing, extending over the superior face of the right leg, about four inches below the tubercle of the tibia, and spreading backward on both sides to the malleoli, covering a surface of about twenty-eight square inches, deep and burrowing in some localities, and in others merely superficial; the whole leg and foot were much swollen and anasarcous, the toes merely protruding from a shapeless mass of flesh closely resembling the foot of a young elephant. An ichorous discharge of a horribly offensive character, together with filthy dressings, augmented the destruction of the surrounding parts.

The advice of an eminent surgeon had been secured a few weeks previously, to the effect that but one alternative remained, amputation; and, indeed, all appearances favored such

a decision. Proper abstinence, tincture of iron, and good diet were directed. The local use of a strong solution of the permanganate of potash and judicious bandaging have already done so much for this case that, at the date of writing, the tenth application of the potash, six square inches, will more than cover the small amount of ulceration remaining, so rapid have been the healing process and the formation of firm, healthy tissue; and, in a few days more, we can confidently prognosticate a complete cure.—*Amer. Jour. Med. Sciences.*

REMARKS ON CANCER IN CONNECTION WITH THE VITAL NERVOUS SYSTEM AND THE BLOOD.

OBSERVATIONS OF DR. PAUL BROCA, SURGEON L'HOSPITAL SAINT ANTOINE, PARIS.

By JOHN O'REILLY.

"When the yellow, straw-colored appearance" of the skin manifests itself, the operation for cancer should not be performed; because the blood is then infected by the cancerous poison (*suc cancereux*), and the vital nervous system is brought under its influence; the vital glands in which the arteries terminate and veins commence, are now dyed with the coloring of the cancer contained in the blood, precisely as they are dyed by the bile in the case of jaundice, or as they become dyed a bluish color by the oxide of silver in the patient who has been treated for epilepsy with nitrate of silver.* Let me quote from Dr. Broca's work on Tumors, page 332.

"In other words, we admit that the elements of the disease succeed each other in the following order:

*This is the best proof that can be advanced that the arteries terminate in glands, and that the veins commence in capillaries from the glands. The arterial blood, containing the silver, is carried as far as the vital glands, where the silver is arrested in its progress through the glands, and where, being exposed to the light, forms an oxide of silver, that gives the bluish tinge to the skin; the silver thus being literally sifted out of the blood. The necessity for understanding this matter well, will be gleaned from what Dr. Broca says, at page 370:

"Nos connaissances ne sont ni plus ni moins avancées sur ce point qu'elles ne le sont a l'égard de la cause immédiate des boutons varoliques, des ulcérations de la morve, des éruptions folliculeuses de la fièvre typhoïde et du choléra, et des manifestations multipées de la syphilis constitutionelle, lesions anatomiques développées, comme les tumeurs par infection sous l'influence d'un état général de l'économie."

"1. The *diathese* or hereditary predisposition produces the primitive cancer.

"2. That produces the infection.

"3. The infection produces the multiplied secondary tumors, the cachexia and death."

If an operation for cancer is decided on, what is the most feasible time for performing it, or when is the operation likely to be followed by temporary success?

Let it be here remembered that Dr. Broca has conclusively established (page 335) that cancer is an hereditary (*diathese*) disease, and that the operation can never be performed with the same certainty of ultimate success as an operation for lithotomy or hernia, when the patient is operated on before the poison is absorbed into the blood from the part or organ affected, and before the vital nervous system is contaminated. "The experiments performed by M. Langenbeck (page 348) illustrate this point, that the *suc cancereux*, when injected into a vein, is capable of producing the disease in a dog"—so in like manner the *suc cancereux*, when taken into the venous circulation of a man, is capable of producing cancer in any part or organ of the body.

"When an individual," says Dr. Broca (page 333), "born of sound parents, becomes the subject of cancer—for example at the age of forty years—and dies in about three years in the natural progress of the disease, after having presented, during the last year, all the signs of cancerous infection," etc., etc.

It will be seen from these remarks of Dr. Broca, that the poison is not absorbed, or rather that the blood, and consequently the vital nervous system is not poisoned until the year previous to the death of the patient, showing that the operation should be performed during the first year. In corroboration of this Dr. Broca remarks (page 355): "It is well known that the circumscribed encephaloid, or what is commonly called encysted encephaloid, can exist for a long time, and acquire a very large size without infecting the constitution."

When the blood is poisoned, no person can tell, after the operation is performed and the disease locally removed, where it may next appear; as for example it may appear in the wound, or in some distant part or organ of the body;* this doctrine is

*"Relapses by repullulation," as they are termed by Dr. Broca (page 375), are the result of general poisoning of the vital nervous system, through the agency of the blood, from the part primarily affected, or through hereditary (*diathese*) taint.

In the case of a dissecting wound, the poison is first localized in the wound, as in the case of localized cancer; but after the lapse of some days, the poison

strengthened by its analogy to other cases, as where a person gets a dissecting wound; after a certain time he manifests all the symptoms of being poisoned. The condition of the original wound at this period, according to the description by Professor Colles, of the Royal College of Surgeons in Ireland, of the case of Dr. Dease, given in the Dublin Hospital Reports, a vesicle existed corresponding to the wound, showing that the poison had acted on the vital nerves of the wound before being carried into the general circulation of the blood, and before poisoning the vital nerves in the heart and in the internal coat of the arteries.

When a man receives the bite of a rabid animal, the original wound may be healed, with the vital nerves at the same time poisoned; but when the *rabies* sets in, the wound will be observed to become inflamed, as has been noticed by Professor Colles in his lectures showing that the poison had been there for a certain period, remaining dormant, until it passes into the arterial circulation and poisons the vital nerves of the heart and arteries, causing death.

It is to be remarked that certain poisons act more promptly on the vital nervous system than others; as, for example, the venom of certain reptiles will kill in periods from one to three hours.

In the case of a dissecting wound, some time may elapse before the whole vital nervous system is brought under the influence of the poison; in other words, the poison may remain located in the wound twenty-four hours before it is absorbed into the blood, and consequently before it poisons the vital nervous system.

In the case of a bite of a rabid animal, weeks or months may pass by before the poison is carried from its original location in the wound to the vital nervous system through the blood. In

is propagated to distant parts of the body; as, for instance, in the case of Mr. Dease, who received a dissecting wound in the thumb, on the 13th of February, 1819, at 1 o'clock P.M. A vesicle of the size of a small pea, was observed at 9 P.M., on Tuesday, 16th; on Sunday, 21st, a swelling was observed on the anterior part of the right arm; and Mr. D. died at 10 P.M. the same evening. On Monday morning, Mr. Colles examined the body; a vesicle of the size of a half dime, had formed on his back; the swelling had extended down the thigh; the left arm was swelled, and rather hardened from the elbow nearly up to the shoulder; the swelling was chiefly along its anterior surface, but it could also be felt all around, yet there was no redness or vesication of the limb.

Any person can see the analogy between the relapses by repullulation in the case of cancer, and the condition of remote parts in the case of the dissecting wound—the vital nervous system being poisoned in both cases, but by different poisons.

the case of a cancer, years may elapse before the poison manifests itself, by entering the blood from the parts locally affected, and brought in contact with the whole vital nervous system.

The practical deduction from all these facts is, that not a moment should be lost in removing, by the knife, the part infected, in the case of the dissecting wound, the bite of the rabid animal, the reptile, and the virus of the cancer.

What proofs are there that the poison is confined to a particular part for a certain time? The proofs afforded by the phenomena caused by the process of vaccination, and the proofs afforded by the inoculation of syphilitic poison. The local appearances in these cases are too well known to require elucidation.

Where is the poison in these cases located? In the vital glands commonly called the *rete mucosum.* What is the proof that the vaccine matter remains in the vital glands or *rete mucosum?* Because the slight wounds made in vaccination do not pass through the corion or cutis vera; the same explanation is true of the application of the syphilitic poison, as exemplified in the case of chancre, when abrasion of the cuticle takes place, leaving the *rete mucosum* exposed to the infection of poison. I will further add, in connection with these latter remarks, the case of Mr. Hutchinson, stated in the Dublin Hospital Reports (Vol. III), who, on the 1st of December, 1818, received a *slight* scratch of the knife on the outer phalanx of the right thumb while dissecting, and resulted in poisoning the wound.

To give an idea of my theory, let us suppose that a man is bitten by a reptile on the hand; the poison is carried by the absorbents from the wound into the venous circulation next to the right side of the heart; from that to the lungs; thence, after being oxygenized, to the left side of the heart; thence to the arteries all over the trunk, head and extremities, to the *rete mucosum;* thus poisoning the vital nerves of the heart and arteries, causing death. *Let it be observed the heart or arteries receive no nerves from the cerebro-spinal system.**

* The vapor of the chloroform passes into the blood through the lungs with the oxygen of the air, and is carried with the blood to the left side of the heart where it is brought in immediate contact with the internal *surface*, or membrane of the heart, and is next carried into the aorta, where it is brought in contact with the internal *surface*, or membrane of the aorta; so, in like manner, it is carried all over the whole body by the arteries, where it is brought in contact with the internal *surface*, or membrane of the arteries. The blood being charged with the chloroform in periods varying, some short, some long, weakens the powers of life, or destroys it altogether, causing the extinction of life in the vital nervous tissue, by being brought in contact with it so extensively through its *connection* with the heart and arteries.

I will now conclude by remarking that had God preserved the great M. Bichat (who died July 20, 1802, at the early age of 30 years and a few months) to the ordinary age of man, medical science would be now in a vastly higher condition of advancement than it actually is. I am now endeavoring to fill up the hiatus left by him, although not possessed of his genius, talents, or acquirements.

To understand the *modus operandi* of the chloroform, it must be remembered that the left auricle and ventricle of the heart are lined with an exceedingly thin and transparent membrane, which is reflected on the semi-lunar valves, and becomes continuous with the lining membrane, or *surface* of the aorta. The connection between the lining membrane of the heart and the muscular fibres is exceedingly intimate, as well as the valves and the elastic coat of the aorta—so much so, that it cannot be removed, except piecemeal, without breaking up the close and delicate connection which exists between them. The membrane appears to be an expansion, or termination of vessels and nerves, derived from the elastic coat; the elastic and internal coats are one.

The question now may be asked, What is the aorta connected with, externally, besides the cellular coat? With a complex net-work of vital nerves, derived from the aoratic plexus, which completely surrounds the artery. Some of these nerves *perforate* the elastic coat, and are *lost* on the internal *surface*, or membrane. The cardiac (vital) nerves, which supply the muscular fibres of the heart, are derived from the cardiac plexus, and are distributed to the muscular fibres of the heart, and terminate in the lining membrane, or *surface* of the heart. The muscular structure can be seen without dissection.

The observations made with respect to the aorta, are applicable to all the large arteries. Every anatomist knows that they are surrounded by a net-work of vital nerves, some of which are lost in the cellular coat, whilst others *perforate* the elastic coat to reach its internal *surface*, or internal coat, as it is usually called—in this way extending along the artery to the vital gland.

I have just verified the observations made with regard to the heart and aorta, by the examination of the heart and aorta of an ox, February 7, 1867. I recommend others to satisfy themselves by adopting a similar course.*

* Let any person endeavor to peel an apple without removing a portion of the pulp.

114 West Fourth Street,
(Washington Square South).

New York, *February 9, 1867.*

Book Notices.

The Renewal of Life; Lectures, Chiefly Clinical. By Thomas K. Chambers, M.D., Honorary Physician to H. R. H. the Prince of Wales; Consulting Physician and Lecturer on the Practice of Medicine, at St. Mary's Hospital; Consulting Physician to the Lock Hospital. Second American, from the Fourth London Edition. Philadelphia: Lindsay &

Blakiston. 1866. pp. 646. Price $5.00. For sale at S. C. Griggs & Co.'s., Lake street.

The subjects discussed in this volume are as follows: Death and Life; Disease and Cure; Formation of Mucus and Pus; Typh. Fever; Small-Pox; Rheumatic Fever; Gonorrhœal Rheumatism; Pericarditis; Pleurisy; Hydrothorax; Acute Laryngitis; Capillary Catarrh; Pneumonia; Emphysema of the Lungs; Pulmonary Consumption; Thoracic Aneurism; Disease of the Heart; Purpura; Anœmia; Prominence of Eyeballs; Atrophy of Muscles; Chorea; Epilepsy; Hysteria; Spinal Paralysis; Sciatica; Albumanuria; Ascites; Diabetis; Mortification; Importance of Digestive Organs in Therapeutics; Indigestion in General; Slow Digestion and Acidity; Pain in the Stomach; Emetation and Vomiting; Diarrhœa; Costiveness and Constipation; Dietetics; Corpulence; On Pepsine; On Alcohol; On Blood-letting; Review; L'Envoi.

This list of important subjects is pretty fully discussed by one of the most interesting and experienced writers of our day. Hence the practitioner will find it a very valuable addition to his library. The book is published in excellent style.

The Functions and Disorders of the Reproductive Organs, in Childhood, Youth, Adult Age, and Advanced Life; Considered in their Physiological, Social, and Moral Relations. By William Acton, M.R.C.S., late Surgeon to the Islington Dispensary, and formerly Externe to the Venerial Hospitals, Paris; Fellow of the Royal Med. and Chir. Society, etc., etc. Second American, from the Fourth London, edition. Philadelphia: Lindsay & Blakiston. 1867. pp. 291. Price $3.00. For sale by S. C. Griggs & Co., Lake Street, Chicago.

The subjects treated in this work, are as follows:—Normal Functions in Childhood; Sexual Precocity; Masturbation in Childhood; Normal Functions in Youth; Continence; Celibacy; Early Marriages; Early Betrothals; Long Engagements; Incontinence; Masturbation in Youth; Insanity and Phthisis from Masturbation; Sexual Conditions in the Adult; Virility;

Marriage; Sexual Intercourse in Marriage; Marital Excesses; Impotence; Sexual Indifference; Erection and its Morbid Conditions; Emission and its Morbid Conditions; Semen and its Morbid Conditions; Sexual Functions and Disorders in Advanced Life; Appendix; Statistics of Marriage; Prescriptions; Exposure of Quacks. All the foregoing topics are discussed by the author with great candor and ability; and however repulsive the nature of the majority of them may be, they are all worthy of the very careful and enlightened attention of the profession. We know of no work better calculated to do good than the one now under consideration.

Guide for Using Medical Batteries: Showing the Most Approved Apparatus, Methods, and Rules for the Medical Employment of Electricity in the Treatment of Nervous Diseases. By Alfred C. Garratt, M.D., Fellow of Mass. Med. Socicty, and Member of the Amer. Med. Association. Philadelphia: Lindsay & Blakiston. 1867. For sale by W. B. Keen & Co., 148 Lake Street, Chicago. pp. 180. Price $2.00.

This is an abridgement of the large work on Medical Applications of Electricity, by the same author. The present volume will be found very convenient for study and reference, both by students and practitioners. It gives full descriptions and illustrations of the various apparatus for applying electricity in the treatment of disease, and the best methods of using them.

A Vest-Pocket Medical Lexicon: Being a Dictionary of the Words, Terms, and Symbols of Medical Science. Collated From the Best Authorities, with the Addition of New Words not before introduced into a Lexicon. With an Appendix. By D. B. St. John Roosa, M.D., Prof. Aural Surgery, etc. New York: Wm. Wood & Co., 61 Walker Street. 1867.

This is just what its title-page would indicate, namely, a very neat and convenient medical dictionary, so small that the student can carry it in his pocket, with perfect ease; and so cheap

as to be within the reach of all. It indicates the accent, or pronunciation, and the direct definition of a large number of words, though in so small a compass.

ORTHOPÆDICS: A SYSTEMATIC TREATISE UPON THE PREVENTION AND CORRECTION OF DEFORMITIES. By DAVID PRINCE, M.D. Published by LINDSAY & BLAKISTON, Philadelphia.

This work of a well-known surgeon of Jacksonville, Ill., comes to us to supply an urgent want in our surgical literature. Our ordinary surgical text-books are wholly insufficient to guide the general practitioner in orthopædic matters, and even the special works on this subject are mostly of a crude and unsatisfactory sort, though containing many valuable ideas. Dr. PRINCE'S work has the merit of containing a careful résumé of the best ideas of the best men, combined with his own special improvements. He has tried to so systematize and simplify the complexities of the subject as to lay the whole of it plainly before the general practitioner. In pursuance of this object, he has taken especial pains to devise forms of apparatus which can be made *extempore*, by members of the profession who have no access to regular instrument makers—a plan which, if carried out, will very much widen the usefulness of orthopædic surgery.

The work is an octavo of 240 pages, and illustrated by nearly 100 wood-cuts.

Part First, consists of a concise discussion of the principles of the science, including the pathology of deformities and of the various joint-diseases, and shows the measures and mechanical appliances adapted to remedy them. It cannot be said that Dr. PRINCE has given an exhaustive view of the pathology of these complaints. Those who wish this must look to other writers. But he has done what to the general practitioner is far more useful, he has given the *main principles* of the pathology, in close connection with the principles of the treatment.

Part Second, deals more closely with special diseases. He commences with hip-disease, because it is, as he remarks, "the lion of its class." After describing the disease, he shows that

the suggestion of the great modern principle of extension for inflamed joints was first made by BRODIE; that Dr. MARCH, of Albany, came very near producing the first portable splint for this purpose, but that Dr. H. G. DAVIS, of New York, first put the principle into a compact and manageable form, and really made the first good hip-disease splint. After figuring and describing the various splints now in use, Dr. PRINCE describes one of his own, which may be constructed by any physician, with the help of a common blacksmith, and which is equally applicable to inflammations of the hip and of the knee-joints.

After treating fully of hip-disease and of inflammations of the knee, the author remarks that, inflammations of the ankle "hardly admit of extension." In this we differ from him. Extension can be applied effectually to the ankle, but it is more difficult, and requires more attention from the surgeon than that of the hip or knee.

The next 50 pages is devoted to spinal curvatures, which are treated of in a sound and practical manner, and two forms of apparatus are introduced, of the author's invention, which can be made by any ordinary blacksmith, thus placing their construction within the reach of the remotest country practitioner. Several illustrations and descriptions of other appliances are also given. It is to be hoped that this plan of devising home-made apparatus will not only greatly benefit many patients who are too poor to go abroad for assistance, but will also turn the attention of general practitioners to this subject, and lead them to comprehend the fact that no ready-made apparatus can be bought, for spinal diseases, which will be of the least use to the patient. Everything must be made to fit the case in hand, or it will be of no use whatever. The so-called spinal supporters, kept ready-made in the instrument stores, are the most worthless trash ever offered to the public. The remainder of the work is occupied with talipes and other deformities. The author presents several excellent inventions of his own, besides a careful condensation of the opinions of others.

On the whole, this work of Dr. PRINCE, though it might be

improved in some respects, is, perhaps, the most practically useful treatise upon orthopædics which has appeared in this country, and we cheerfully commend it to the profession.

E. A.

Editorial.

Injustice to the Insane.—We see in the recent biennial report of the Superintendent of the Hospital for the Insane at Jacksonville. Some pretty severe comments on the laws of this State relating to the method of proving persons insane, preparatory to admitting them into the Hospital. The comments of Dr. McFarland are not more severe, however, than they are just and well timed. The law positively requires the insane person to be brought into the Probate Court-room, before a jury, one of whom must be a physician, and such jury, after hearing the evidence, is to render a decision, as to whether the person present is sane or insane. Every intelligent physician knows that a large number of cases of insanity are of such a nature, that the public exhibition required by the law is directly calculated to aggravate the disease, sometimes even to a fatal extent. And yet the examination before the jury is practically a farce, because five out of six of the jurymen are entirely ignorant of the nature of insanity, and are obliged to rest their decision on the testimony of competent medical witnesses. Hence, the certificates of these same witnesses, duly sworn to, and handed directly to the judge, would afford precisely the same evidence of sanity or insanity, and just as much safety against abuses, as is afforded by the present law. The idea of bringing an insane person into a public court, for the purpose of testing the question of their insanity simply, is a barbarous absurdity.

Delegates to the International Medical Congress in Paris.—We learn that the New York State Medical Society, at its recent annual meeting, appointed several delegates to

represent that Society in the International Medical Congress, to be held in Paris next August. We hope all the more important medical societies in this country will do the same, taking care, however, to send only men of eminent ability.

Chicago Medical Society.—The discussion at the last meeting of this Society, was on the entozoæ found in the human species, and their pathological effects. The discussion was an interesting one, and participated in by Drs. Wickersham, C. G. Smith, E. L. Holmes, Paoli, Groesbeck, Reed, Ross, and Davis. Nothing positively new was elicited, except a partial account of a very singular case now under observation in this city; and of which we hope to have a more complete report hereafter.

The Summer Course of Instruction.—The regular reading and Clinical Term of instruction in the Chicago Medical College will commence on the second Tuesday in March, and continue until the first of July following. The instruction will be given by the Faculty of the College, and will consist of one or two familiar lectures and recitations, and one hour of clinical instruction in the Hospitals each day. The clinics in the Mercy Hospital will be given on Monday, Wednesday, Thursday, and Saturday; and in the County and City Hospital, on Tuesday and Friday of each week.

Good *material* will also be furnished to those who wish to pursue dissections. The Spring and Summer Course, as thus arranged, affords very superior advantages to all such students as can remain in the City until July. It ensures a systematic course of practical and demonstrative instruction of the most valuable character, without the crowding of many topics upon the mind the same day, as is necessarily done during the regular Winter Term. It must be distinctly understood, however, that this Summer Reading and Clinical Term is merely supplimentary to the Annual Lecture Term, and in no case to be counted as *one college term* by the student in making up his requirements for graduation.

It has been no part of the objects of the Faculty of the Chicago Medical College to increase the *facilities* for the graduation of students, by making two Lecture Terms in one year, or by adhering to one short and inadequate term. On the contrary, one of their primary and most cherished objects, is to induce medical students to take a higher and broader course of medical instruction, before attempting to graduate. The Summer Course is free to all the matriculants of the College.

PROCEEDINGS OF MORGAN COUNTY MEDICAL SOCIETY.

The Society met at the court house in Jacksonville, at 2 o'clock P.M., on Thursday the 14th day of February.

In the absence of the President and Vice-President Dr. Askew was appointed President *pro tem.*

The minutes of the last meeting were read and approved as printed in the JOURNAL. Drs. DeLeuw and C. A. Edgar were nominated for membership.

As no one of the individuals regularly appointed for the exercises of the meeting were prepared with papers, Dr. Malone was requested to read a paper on the Calabar Bean.

After giving its natural history, he proceeded to its action upon animals and upon the human system—when administered in the usual way—by subcutaneous injection and in other ways. Its local influence upon the eye was more particularly commented upon, and the experiments of quite a number of foreign scientific men were mentioned, and the results of those experiments were, briefly, that the local action of this drug produced first, a sensation of "strong tension in the neighborhood of the ciliary body," and second, "astigmatism or a state of irregular refraction in the eye in which the rays are not brought to one focus, but converge at different distances so as to form two linear images at right angles to each other." This peculiar condition of vision was remedied by concave glasses of proper foci. This astigmatic state existed eighteen hours after its application. Numerous experiments have proven that it invari-

ably causes prompt contraction of the pupil, and that the contraction reaches its maximum in the course of an hour.

Dr. Malone was requested by the Society to publish his paper in some medical journal.

Dr. Prince had prepared and read "the chief points in a case of forward dislocation of the tibia on the astragalus with fracture of fibula, in which at the end of nearly three months the dislocation was found still to exist, having either never been reduced or having become re-dislocated. The displacement at the end of this period was reduced and the parts kept in position by an outside splint of wood, pasteboard, and bandage. The result was a prosecution for damages against the physician first in attendance, on account of alleged malpractice (tried three years after the receipt of the injury), the jury finding for the defendant.

The doctor read the instructions given by the judge to the jury in this case.

Dr. Edgar remarked that he was much interested in the case. The suit evidently grew out of malice. The man was hunted down by his medical brethren of the same county. It arose from want of professional courtesy.

The doctor hoped that medical men would rise above their petty feelings of jealousy and rivalry, and cease to give cause to the members of other professions to hold them upas proverbially quarrelsome.

Dr. Edgar, having prepared some notes on the early history of the introduction of mercurials into the materia medica, was requested to read them to the Society, which he accordingly did. They were listened to with marked attention and interest by the Society.

Dr. Reed made some remarks upon the use of mercurials.

The Society then adjourned to meet on the second Thursday in March, at half-past 1 o'clock P.M., at the court house, in Jacksonville.

C. T. WILBUR, M.D., *Secretary.*

The Body of Jeremy Bentham.—The London *Notes and Queries* contains a letter from the late Dr. Southwood Smith, in relation to the disposal of the body of Jeremy Bentham. The letter is dated June 14th, 1857, and says:—"Jeremy Bentham left by will his body to me for dissection. I was also to deliver a public lecture over his body to medical students and the public generally. The latter was done at the Webb Street School—Brougham, James Mill, Grote, and many other disciples of Bentham being present. After the usual anatomical demonstrations over the body, a skeleton was made of the bones. I endeavored to preserve the head untouched, merely drawing away the fluids by placing it under an air-pump over sulphuric acid. By this means the head was rendered as hard as the skulls of the New Zealanders, but all expression was gone, of course. Seeing this would not do for exhibition, I had a model made in wax by a distinguished French artist, taken from David's bust, Pickersgill's picture and my own ring. The artist succeeded in producing one of the most admirable likenesses ever seen. I then had the skeleton stuffed out to fit Bentham's own clothes, and this wax likeness fitted to the trunk. This figure was placed seated on the chair on which he usually sat, and one hand holding the walking stick which was his constant companion when he went out, called by him Dapple. The whole was enclosed in a mahogany case, with folding glass doors. When I removed from Finsbury Square I had no room large enough to hold the case; I therefore gave it to University College, where it now is.

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A Novel Method for the Production of Anatomical Plates.—At a late meeting of the Vienna Academy of Sciences, Herr Mach suggested a curious application of photography to the purposes of anatomical education. "If," he said, "you photograph any solid body, such as a sphere, and if before the image has been fully received you substitute for the sphere another solid body, such as a cone, the resulting photograph will be a sort of transparent picture of a sphere enclosing a cone, which, when arranged stereoscopically, will seem perfectly solid and transparent." His application of this principle was thus expressed:—"Place a temporal bone before the camera, and before its image has been fully formed, substitute for it a cast of the auditory apparatus, and you will have a picture in which the internal ear can be seen through a transparent picture of the temporal bone. When this is arranged for the stereoscope, the two parts will be seen in perfect relief."

MONEY RECEIPTS FOR EXAMINER, FROM JAN. 1ST TO FEB. 21ST.—Drs. C. B. Reed $3, L. H. Cary 1, B. Stuvi 3, Wm. H. Byford 3, Orin Peak 3, V. C. Price 3, R. Winton 3, A. G. Jones 3, N. Holton 6, T. Scharer 3, C. M. Robertson 2, W. H. Lyford 3, J. W. Johns 3, J. McLaughlin 3, W. A. Elder 3, Philip Schaffer 3.50, J. S. Bullock 1, J. N. Bishop 3, H. Nance 3, V. H. Coffman 5, T. D. Fitch 5, J. M. Barlow 3, M. F. Bassett 3, Dr. Frazey 3, G. W. Morrill 2, T. Hoffman 3, H. W. Kendall 3, J. Brown 3, S. R. Millard 3, D. W. Young 10, T. D. Fisher 3, J. E. Thayer 2, J. Prestman 2, W. P. Naramore 3, S. B. Davis 5, A. Sheffield 3, Geo. Fredigke 3, Addison Niles 3, M. Shephard 3, J. F. McCormick 3, J. H. Goodell 3, T. M. Tyler 3, H. P. Oggell 3, C. T. Lichtenberger 5, M. Parker 3, A. M. Maxwell 3, E. P. Cook 3, A. G. Edwards 3, David Newell 3, L. Humphreys 3, R. Bolton 3.

CHICAGO MEDICAL COLLEGE.

The regular Annual Lecture Term in this Institution will commence on the first Monday in October, and continue until the first Tuesday in March following. Clinical Lectures *daily* throughout the term.

FACULTY.

N. S. DAVIS, M.D., Professor of Principles and Practice of Medicine, and of Clinical Medicine.

W. H. BYFORD, M.D., Professor of Obstetrics and Diseases of Women and Children.

EDMUND ANDREWS, M.D., Professor of Principles and Practice of Surgery, and of Military Surgery.

F. MAHLA, Ph. D., Professor of Organic Chemistry and Toxicology.

H A. JOHNSON, M.D., Emeritus Professor of Gen. Pathology and Public Hygiene.

J. S. JEWELL, M.D., Professor of Descriptive Anatomy.

J. H. HOLLISTER, M.D., Prof. of Gen. Pathology and Public Hygiene.

RALPH N. ISHAM, M.D., Professor of Surgical Anatomy and Operations of Surgery.

M. O. HEYDOCK, M.D., Professor of Materia Medica and Therapeutics.

F. MAHLA, Ph. D., Professor of Inorganic Chemistry.

R. J. PATTERSON, M.D., Professor of Medical Jurisprudence.

DANIEL NELSON, M.D., Lecturer on Physiology and Histology.

J. M. WOODWORTH, M.D., Demonstrator of Anatomy.

For the Winter Term, admitting to all the Lectures in the College,	$50.00
Graduation Fee,	20.00
Matriculation Fee,	5.00
Dissecting Ticket,	5.00
Hospital Ticket,	6.00

The Summer Reading and Clinical Term commences on the second Tuesday in March, and continues until the first Tuesday in July; and is free to all matriculated Students of the College. Boarding, $3.50 to $4.50 per week. For further information, address

E. ANDREWS, *Sec'y of the Faculty.*

Bellevue Hospital Medical College,

CITY OF NEW YORK.

SUMMER SESSION—1867.

In accordance with a plan entertained when the Bellevue Hospital Medical College was established, the Faculty of the College have instituted a Summer Course of instruction, the first Session to take place in the Summer of 1867. The plan is to inaugurate a collegiate year of medical instruction, with a Spring vacation from the termination of the Winter to the beginning of the Summer term, and a Summer vacation lasting from the end of the latter term to the ensuing Autumn and Winter Session. The following are objects of the Summer Session: To provide instruction in the branches which cannot be fully taught during the regular Winter Session, thereby enlarging the curriculum of medical study; to furnish inducements to medical students and graduates who have attended lectures in the Winter Session to remain or return to attend more or less of the courses in the Summer Session, and also to induce the attendance of students who design to attend the ensuing Winter Session; to offer opportunities to practitioners of medicine, desirous of spending some time in the metropolis for medical improvement, and who can come more conveniently in the summer than during the winter months; to present facilities for the prosecution of certain special subjects in medicine; to make available, for the summer as well as the winter months, the resources of clinical teaching in which the city of New York abounds; and, finally, to enable the student to pursue his medical reading with the advantages of competent direction and daily recitations. The Faculty respectfully invite the attention of medical students and members of the medical profession to the importance of these objects, as calculated to render medical instruction more complete and thorough.

FACULTY OF THE SUMMER SESSION.

HENRY D. NOYES, M.D., Professor of Ophthalmology, and Dean of the Summer Faculty.
J. LEWIS SMITH, M.D., Lecturer on Morbid Anatomy.
FOSTER SWIFT, M.D., Lecturer on Diseases of the Skin.
PROFESSOR WM H. VANBUREN, M.D., Lecturer on Diseases of the Genito-Urinary System.
PROFESSOR R. O. DEN DORENUS, M.D., Lecturer on Animal Chemistry.
PROFESSOR AUSTIN FLINT, JR., M.D., Lecturer on Microscopical Anatomy.
PROFESSOR GEORGE T. ELLIOT, M.D., Lecturer on the Diseases of Children.

The Summer Session will commence on the first Wednesday in April, and end in the early part of July, 1867. The course of lectures in each of the several departments of instruction will consist of about twenty-five lectures; at least two lectures in each course will be given weekly, making about three didactic lectures daily during the Session. In addition, clinical instruction will be given at the Bellevue Hospital, and at the Charity Hospital, Blackwell's Island.

A daily recitation will be provided for by the Faculty during the Summer Session. *The recitations will embrace the departments of instruction which enter into the curriculum of the Winter Session.* Attendance upon the recitations during the Summer Session, without as well as with attendance on any of the course of lectures, will entitle the student to a certificate of pupilage, which, together with the tickets for the courses of the Winter Session, will be recognized by the Bellevue Hospital Medical College as evidence of a year of medical study. The fee for the recitations is $30. The recitations are continued during the Winter Session, and, on payment of a fee of $30, the student will receive a ticket for the recitations during both the Summer and the Winter Session. The ticket for the recitations is voluntary, and is not required of those who take out tickets for any or all the courses of lectures. The fee for attendance on each of the courses of lectures, exclusive of clinical lectures, is $10. Attendance on the courses is voluntary; the tickets for each course may be taken out separately. The fee of $10 for each course will be required from graduates and practitioners, as well as students. No fee will be required for attendance on the clinical lectures, except the matriculation fee.

The matriculation fee is $5, and must be taken out before the tickets for the full Summer course or any of the special courses or the ticket for the recitations are issued. This fee will not be required again from those who have attended during the Summer Session for the succeeding Winter Session in Bellevue Hospital Medical College. Attendance on the courses during the Summer Session will not be considered as equivalent to an attendance on one of the two Regular Sessions required by law for graduation, nor will any of the courses in the Summer Session be considered as a substitute for any of the courses in the Regular Session, as regards the requirements for graduation.

A certificate of attendance on the several courses in the Summer Session will be conferred at the close of the Session, and the names of those who have attended will be publicly announced at the Annual College Commencement.

The lectures and recitations will be held in the commodious building of the Bellevue Hospital Medical College, situated within the grounds of the Hospital, between Twenty-sixth and Twenty-eighth Streets, on the East River. Students and practitioners, on arriving in the city, are requested to report at the Hospital, and inquire for the Janitor of the College, who will aid them in procuring comfortable accommodations without delay. The entrance to the Hospital is on Twenty-sixth Street.

For further information address

PROF. HENRY D. NOYES, M.D., 65 Madison Avenue,
Dean of the Summer Faculty; or
PROF. AUSTIN FLINT, Jr., M.D.,
Secretary Bellevue Hospital Medical College.

THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M.D., Editor.

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Original Contributions.

ARTICLE XVII.

REPORT ON THE HISTORY OF MEDICINE.

By S. J. YOUNG, M.D., Ch'n Com., Paris, Ill.

Read to the Esculapian Society, at the Meeting held at Paris, Ill., May, 1866.

The practice of medicine implies the application of science to the cure of diseases and to their prevention; while that of surgery, one of its branches, relates to a similar application to the accidents of the human body and all that class of diseases requiring the use of the knife, or those more purely objective—fractures, dislocations, ulcers, etc. This is our understanding at the present time, and has been since the increase of knowledge entitled it to a science. But, in the early ages of the human family, it could not claim this rank; and whatever medicinal agents were then used were merely from experience, as not even the virtues of the simplest herb or plant could have been known in any other way.

It is evident that in all ages agents of one kind or another have been used for the relief of those afflicted from bodily disease or injury, and that some would give more attention to it than others, and would gradually become the doctors or prescribers of medicine; and, as the human mind loves mystery, they made up in their agents what they lacked in knowledge—and the doctor and all he knew was a bundle of unfathomable

mystery. In the mysterious department we have not changed, as this class is as much sought after now as ever before, and spiritual and magical doctors have a lengthened train of followers, who believe everything they cannot see, and nothing which they can.

They avoid the *quod erat demonstrandum*, and hug to their foolish bosoms the *non est demonstrandum.*

But to this small beginning, one fact has been added to another, one demonstration to another, until a vast structure has been raised up, now almost perfect, to illuminate the world and gladden the human heart. From the depths of the ocean, a tiny insect has built up in increasing labor vast reefs of coral, each brief age having its increase, giving monuments exceeding those of man. The flowing and the ebbing billows of the sea have thrown up, sand by sand, islands which have become the abode of man. Three thousand years ago, and more, the shapeless mass of medicine began to assume form. Ages anterior to that, in Egypt and China, it was practiced as an art; and when the inhabitants of Greece were but savages, living in caves and upon acorns, Phœnicia boasted of her Tyre and the arts of civilization, and the banks of the Nile gave to Athens her foundation, and name, and the arts and sciences, and Thebes sprang up from her no less civilized neighbors, the Phœnicians. From revolutions, came this new world, so long the seat of empire in art and science, and all that was great and commanding.

Æsculapius, whether mythical or real, was the representative of the art of medicine, became a god, to whom temples were erected and in which he was worshipped. The serpent and the cock were second to him—and these figures are still emblems of our art. He lived before the Trojan war; was said to have been the son of Apollo; accompanied the Argonautic expedition, as their physician; and was greatly skilled in the power of medical plants. His knowledge led to his death, for Plato complained that he restored so many to life, that this god (of the infernal regions) had nothing to do, and Æsculapius was killed by Jupiter by a thunderbolt, the forger of which, Cy-

clops, was killed by the incensed father, Apollo. This gives the highest evidence of his skill, and is the only instance known where the grave has made this complaint. Unlike our great father, we shall have the credit of giving to the grave all that is due.

Human skill has bounds, and life a termination, but to us belongs the duty of giving length to that which might be short, and ease to that which might be painful; and thus far our profession excels all others. It is as much superior to that of law, as human life is of more value than property. Voltaire says, that a good physician is far above the grand of the world, and kindred to divinity.

Machaon and Podalirius, sons of Æsculapius, accompanied the Greeks to the Trojan war, as physicians. The former was a skilful surgeon, and devoted his time to the dressing of wounds. The latter was invited to stay a pestilence in the Grecian camp, which had baffled the skill of others. On his return from the war, being shipwrecked, he cured the king's daughter, who had fallen from the house and was insensible, by bleeding her. This is the first recorded case of bleeding being applied to one stunned by a fall. Having cured her, he married her. Philoctetes was cured of a wound of the foot, by Machaon, and in a manner which would not be discreditable to the surgery of this age. He was placed in a bath and cast into a deep sleep, when the putrified flesh was cut out, was washed with wine, and herbs applied, by which the parts were healed and the hero restored to health. The statement of this fact is evidence of respectable surgical knowledge—precisely what would now be done, in a similar case, by every gentleman of this Society.

Pindar states, that Æsculapius cured ulcers, wounds, fevers, etc., by enchantments, calming potions, incisions, and by external applications. This was pretty good eclectic practice, and rather better than that adopted by the mendicant tribe of the present day. It certainly compared favorably with the charms used by the people of Devonshire, England, 150 years ago. Their infallible remedy for sciatica, called "bone shave,"

was this:—The patient must lie on his back, on the bank of a river or brook, with a straight staff by his side, and must have the following words repeated over him:—

"Bone shave right,
"Bone shave straight.
"As the water runs by the stave,
"Good for bone shave."

In the name of the patient repeated.

The interval between the two methods is nearly 2000 years, and the former, I think, has the preference. Instinct and experience go hand in hand in the beginning of the healing art. Instinct would lead the feverish to quench thirst with cooling drinks; one with ague, to get warm by fire and covering; to reject food when the stomach would not receive it. And experience would reäpply those remedies which had been found efficacious. These fragments were gathered up in the primitive age, and went far towards the development of system.

After the death of Æsculapius, and he had become deified and temples had been erected to his memory, the medical art passed into the hands of the priests of these temples, who were called Æsculapiades. They purged, and bled, and vomited, and paid great attention to hygiene. Everything was involved in mystery, and nothing pertaining to the plans was revealed. It was a sacred and secret society, but knowledge was taught to those who desired to become priests. This age continued for nearly 700 years, when the secrecy was broken through and a new and enlightened age came, which was denominated the Philosophic Age. The Æsculapiades still continued to practice and teach medicine in the temples, but the pupils of Pythoras and of the Gymnasia went out and practiced, going from house to house, and city to city. The veil of secrecy was removed, and in the philosophic age a more enlightened and substantial foundation was laid. There were public discussions and teachings. This age continued about 200 years, and until the establishment of the Alexandrian library, 320 years before Christ. In this age lived Hippocrates, who wrote extensively upon everything pertaining to medicine, then known. His

writings are frequently referred to at the present day, and exhibit the character of a student and philosopher, and a great advancement in medicine over the preceding ages. His doctrines and teachings were founded upon interpretation of the most abstruse subjects, and no facts or doctrines were announced without a reason, no matter how absurd. He had some knowledge of anatomy, physiology, and pathology, and has exercised a greater influence in medicine than any man that has ever lived since or had before. His school at Cos, acquired great reputation, and although the prejudice of the age in which he lived, forbade dissection of the human body, he obtained, from the dissection of animals, a general idea of anatomy, which enabled him to elucidate many of the doctrines he advocated. His doctrine of coction and vital forces, and of critical days or crisis in disease founded upon that, has undergone but few changes, and has received the sanction of the profession to a certain extent, since his time, now more than two thousand years. Whether false or true, it is a widely obtained belief that the vital forces are expended, or become dominant, and lead to life or death on certain days—on the 7th, 14th, 21st, or other days. It is a doctrine which has been taught all of us. It is a doctrine of truth and of nature, for whatever has life, terminates in death, and if three-score years and ten expends the vital forces unaided by disease, and lead to death, the presence of disease may expend them in a few hours, or days, or when the contest between the two are more equally balanced, it seems reasonable that a certain or fixed time will give dominance to one or the other. All experience teaches this. The eruptive diseases are clearly obedient to this law; and while I do not give credence to all that is said of critical days, I yield a belief to the principle, for it is a seal of God impressed upon all living matter. Some now before me have been born since one of the requirements in the medical schools of France was to understand the aphorisms of Hippocrates, and no man can understand them without being enlightened in his profession. To him and his family the science of medicine owes much of its success and usefulness.

His published works astonished the world, and made the physical science of man among the most important branches of philosophy. He was great and renowned in his own age, and the habit of calling medicine the art of Æsculapius was gradually lost, and the learned more frequently spoke of it as the science of Hippocrates. So popular did he make the study of medicine that no man was esteemed learned without it; and Plato and Aristotle were not only philosophers, but were eminent physicians and naturalists. The latter founded the first known museum of natural history upon earth. He was the protege of Philip, of Macedonia, the most enlightened and munificent of Kings, and when he selected the philosopher and physician as preceptor to his son, Alexander, he sent him, from his camps in Asia, the rarest of animals and plants to enrich the museum. How great this age of heroes, of philosophers, of statesmen, and of physicians! It was an age of thought, of reason, and of contest of mind, and rises sublimely beautiful above the grosser eras of succeeding ages. From the pupil and philosopher, Alexander rapidly became the king and conquerer, and in all his rapid strides to monarch of the earth, never forgot what was due to the advancement of science, and shortly after his death, a new era dawned upon the world, which to the ancients had a similar influence to the discovery of printing to the moderns. It was the formation of two great libraries—that of Pergamos and Alexandria—the former containing two hundred thousand volumes, and the latter six hundred thousand. These were accessible to all who sought their accumulated richness, and has conferred immortality on their founders. Their manuscripts were upon Egyptian papyrus, but a rivalry between them interdicted the exportation of the papyrus from Egypt to Pergamos, and the latter invented the parchment which has since been so extensively used, and upon which our diplomas of the present day are written. Technical or classical name of which is *charta pergamia.* When the beautiful Cleopatria had conquered Pergamos, she transferred its library to Alexandria, which for a thousand years continued the seat of learning. This great metropolis of

medical science, and its medical schools, were to the ancients what the Paris schools are to the moderns. It was here that the Hebrew savans were charged by Philadelphus with the translation of the Bible into Greek, which has been so highly esteemed ever since, and is called the Septuagent. It was from the banks of the Nile that science and learning went to Greece, and the fire of genius died out at its fountain, when its brilliant light illuminated Attica and the world. After long ages its smouldering spark was again kindled in Egypt, which gave to Alexandria a name and rank which long survived the destruction of the kingdom in which it was located. It was here that anatomy was first taught by dissection. It was the great school of medicine for the world. It was here that Galen, a native of Pergamos, and the great physician of Rome studied. Criminals, who were executed, were given for dissection, and prejudice yielded to reason. The Ptolemies were its patrons, and its name was respected and honored in the uttermost ends of the earth. For four hundred years anatomy was taught in this school, and it may be inferred that it gave an immense impetus to medicine. In fact, the practice of that day was about as it was thirty years ago in this country. Bleeding, purging, and sweating were boldly used, and diseases were classified into internal, external, acute, and chronic. The treatment was divided into hygienic, pharmaceutic, and surgical. They gave great attention to symptons, and were remarkably exact in prognosis. Various sects arose at different periods of the Alexandrian school, which gave rise to discussions and the general improvement of medicine; but all, in reality, were based upon the Hippocratic doctrine, which consisted in employing such curative means as would be contrary to the generative cause of disease, or to the primitive and essential, to which all the other symptons are connected. When Alexandria fell under the Roman dominion, its schools of medicine lost their character; for anatomy could no longer withstand the Roman respect and prejudice for the dead, and about the second century of the Christian era its dissecting rooms were closed.

Hospitals were established about the fourth century, and the first in that holy city where our Savior was crucified, and by a Christian female from Rome. From that to this day, their holy blessings have been felt throughout the Christian world, and the maimed, and the halt, and the blind, have found within their sacred walls a holy rest of peace, which but for Christianity, which but for medicine, and for the charity of woman's heart, would have been forever shut out. But, in the destruction of the Alexandrian library, in the sixth century, passed away the glory of accumulated ages. For eighteen hundred years it was the great commercial city of the earth. But only for a thousand years from its foundation to its capture by the Saracens was it great in letters. With that event passed away its schools of philosophy, medicine, theology, and astronomy. The glory and empire of Greece and Rome had passed into the hands of the infidel, who, in their turn, contributed largely to the cultivation and spread of science and letters, and from the tenth to the thirteenth centuries, during Moorish rule in Spain, its schools at Cordova, Toledo, and Seville, were the resort of all Europe for instruction. They especially cultivated medicine, and had a school of celebrity at Bagdad, where Rhazes gave lectures, and whose name we *see* frequently quoted in modern works, especially in eruptive diseases. We can readily judge how justly great he is reputed, from a few sentences he has left us on the selection of a physician, and which is worthy of being understood by all: "Study carefully the antecedents of the man to whose care you propose confiding all you hold most dear upon earth; that is to say, your health, your life, and the health and lives of your wife and children. If the man is dissipating his time in frivolous pleasures; if he cultivates, with too much zeal, the arts that are foreign to his profession, such as music and poetry; still more, if he is addicted to wine and debauchery, refrain from committing into such hands a trust so precious. He merits your confidence who, having early applied himself to the study of medicine, has sought skilful instructors, and seen much disease; who has united to the assiduous reading of good authors

his personal observations, for it is impossible to see everything and try everything in one's own practice, and the knowledge and experience of a single individual compared to the knowledge and skill of all men of all ages, resembles a slender brook of water that flows by the side of a great river." The Arabian physicians made improvements in pathology and therapeutics. They were the first to distinguish eruptive fevers by the external character of the eruption, variola and varicella. They introduced mild purgatives, such as cassia senna and manna, which happily took the place of the more drastic of the ancients. They also gave us the confection of syrups, of distilled waters, of tinctures, and compounded many new ointments, pomades, and plasters, for external applications.

A little further on, and during the middle ages, when the northern hords had swept away the civilization of the world, and had destroyed empires, kingdoms, and cities, medicine again fell into the hands of the priesthood, and continued until it was so abused that the Pope interdicted the practice of the art in about the thirteenth century. For four centuries prior to that, the healing art was monopolized by the Jews and priests, and but little advancement was made, as may be inferred from the receipt of a priest, sold for the preparation of green frogs for medicinal use. It was a secret compound, and the vendor boasted of the large price he obtained for it. The priests and Jews stood at the head of the profession, but others of a lower order divided the profits with them. Such creatures as barbers, bath-tenders, and old women; especially did the barbers take under their charge minor operative surgery. The result of this condition in medicine so lowered it in the estimation of those having authority, that they began to make exactions of knowledge upon those who practiced the profession. Medical colleges again came into repute, and were founded at various points throughout Europe. That of Salerno, in Sicily, obtained great reputation. But its epoch of greatest splendor was about the tenth century, when the crusaders of Christian Europe were rushing to the Holy Land. Being located on this great pathway of travel, gave it advantages of giving

aid to the sick and wounded which others less favorably situated did not possess, and its healthy and delicious climate made it a desirable resort for kings and knights, and barons, in their crusades. In fact, its reputation drew from all parts of Europe those afflicted with diseases and wounds difficult of cure. The son of William the Conqueror, was treated there for a wound on his return from the crusade. Its faculty issued edicts for the preservation of health, which were sought after and respected by crowned heads. To the king of England they wrote: "If you wish good health, banish despondency and avoid anger. Drink but little wine, eat light suppers, and do not disdain to take some exercise after meals. Do not sleep during the day; (do not retain too long the urine and evacuations from the bowels.) By observing these precepts your life will be prolonged." I quote this to show you the character of this faculty, and that their advice could not be much improved upon in this day.

In the thirteenth century, the king of Naples issued an edict forbidding any one to practice medicine in his kingdom who was not a graduate of the school at Palermo. The requirements of the school were a study of three years in logic and five years in medicine. He must have attained the age of 25 years. He then received a diploma as now. The surgeon was required to devote his time when a student to anatomy, and to prepare himself especially in this department. A new era had now commenced to dawn upon Europe and the world. In the thirteenth century were established most of the universities of Europe. Soon after this the discovery of printing gave a renewed impetus to learning, and the buried treasures of the Greeks and Romans were brought to light. Knowledge was everywhere sought after, everywhere cultivated, and philosophers, statesmen, orators, and physicians, assumed the high rank to which their learning entitled them.

We have noticed the primitive period—that of Æsculapius, the priestly period, that of the Æsculapiades, the Hippocratic and Philosophic period, or the Greek period, the schools of Cos, of Pergamos and Alexandria, the Arabic period, the scattering

of civilization in the destruction of Greece and Rome, the dark ages, and that of light now dawning upon us—this the great era of the world, this the *magnus ab integro soeclorum nascetur ordo.* Great advancement had been made in the periods recited, both in surgery and in the practice of medicine. Trephining is described in all its minutia by Hippocrates, and for hundreds of years was practiced by the Æsculapiades. Even the superior anatomical school of Alexandria added nothing to this operation, and it was almost abandoned by the later Greek and Latin physicians, and ointments and pomades substituted. Nasal polypus was extracted and cauterised by Hippocrates, and the tongue, and the palate, and the tonsils were scarified and cauterized. One of the Æsculapiades even performed tracheotomy. Hippocrates performed the operation of empyema, and boldly punctured the chest for collections of pus or serum. The operation, however, fell into disuse afterwards, and was not practiced by the Greek, Latin, or Arabic physicians, and in fact was not revived until about the sixteenth century. He practiced paracentesis abdomino—*directs* that the puncture must be made near the navel. He did not cut for stone in the bladder, but says he abandoned that operation to the mercenaries who devoted themselves to it, which is significant that this capital operation was not only known, but practiced in the early age of medical science. This operation was also long abandoned, but was performed by the professors at Alexandria, and by Celsus at Rome, and by itinerants in the middle ages, until it came to be practiced again by the celebrated surgeon Guy de Chanlias Celsus. Galen and Leonidas, of Alexandria, treated hydrocele by excision, by the seton, cauterization, and puncture. All that our age has done is to add that of stimulating injections. The ancients were close observers of disease, and of all the causes inducing them, such as atmospheric changes, habits, manners, alimentation, and all other causes relating to health and disease, and we are astonished that prior to the study of anatomy, they practiced surgery as boldly and successfully as they did. Scarcely a disease now known but that was accurately described by Hippocrates,

Celsus, or Galen, and the zeal with which medicine was taught and practiced in the schools of Cos, of Pergamos, and Alexandria, may justly excite the wonder, and command the admiration of all ages and all men. But, upon the revival of letters, and the discovery of printing, and the establishment of medical schools throughout Europe, all that had been taught and known before was taught again, and although the improvement was slow, it was upon a sure and more substantial basis. Although they adhered to the doctrines of Hippocrates, Plato, Aristotle, Galen, Rhazes, and Avicenna, in all the schools until about the sixteenth century, still the amphitheatres for dissection and the laboratories of chemistry opened up new avenues of knowledge, which gave increased intelligence and knowledge to the medical world. Necropsy came into practice, and pathology made a beginning to give assurance to observation. Chemistry was rudely known as early as the third century as alchemy, the only object of which seemed to be change, or attempt the change of the baser metals into gold and silver, but really did not become a science until the last century, since which it has advanced more rapidly, perhaps, than any other branch of our science.

It was reserved for the sixteenth century to throw off adherence to ancient doctrines and dogmas, and to take a rapid and long step in the march of improvement. It was an age of regeneration in science, and while the torch of physical science was making the world brilliant by the discoveries of Gallileo, by his first calculated laws of gravity, by his discovery of the weight of the atmosphere, and his discovery of the movement of the earth on its own axis, and around the sun; William Harvey discovered the circulation of the blood, and Malpighi, a few years later, in 1661, demonstrated for the first time, by the aid of the microscope, the progression of blood globules in the small vessels; and Hallar and Helvetius instituted experiments to calculate and determine the forces and the manner by which the movements of the chest are affected. About the middle of the same century, lymphatic vessels and their functions were discovered by Picquet, which confirmed the doctrine

of Harvey and overthrew that of the ancients, which attributed to the liver the functions of hæmatosis. Comparative anatomy was carefully studied, and the structure of the nervous system better known. About the beginning of the seventeenth century, the celebrated mathematician, Kepler, announced that the chrystaline lense was not, as had been supposed until that time, the seat of vision, but that its function is to refract the rays of light. The researches of Sir Isaac Newton on light and color contributed also to perfect the theory of the visual functions. The organ of hearing and its internal muscles and minute bones were carefully studied, and Duverney and Vicussins, by comparative anatomy, corrected former errors, and established the true seat of audition in the membrane which lines the drum and labarynth. Thomas Willis regarded the brain as an assemblage of various apparatuses, and assigned special functions to some of its divisions, and Camper, by the comparison of heads of men and animals, established the facial angle as the criterian of intellect. Showing that as we descend from the higher to the lower animals, the forehead recedes and the jaws become more elongated. The vital forces attracted attention in this age, and while the mathematicians assumed to explain the functions of the animal economy by the laws of mechanics—that the secretions, the circulation and nutrition, were the result of the elasticity of the tissues and of the friction of liquids; the chemical physician explained it upon the principle of mixture of chemical elements, of alkalies, acids, gases, salts, and fermentations. But Francis Glisson, an Oxford professor, overthrew these fallacies by the recognition of irritability as a principle or part of the living solid tissues. In 1757, Haller published his great work on Physiology, and henceforth this branch of our science has held a separate existence from physics or chemistry, and it was demonstrated that life has its laws and its special forces, which require a particular method of study. In the seventeenth century, Cheselden, the Monroes, and Bœrhave, made wonderful advances in surgery, anatomy, and physiology, and in our own time their works are standard authority. The next century, the

eighteenth, presents us with the most brilliant array of names that have ever shone upon the world of medical science. Brown, Cullen, Hunters, the Gregorys, Bichat, Lind, Pringle, and Jenner. Jenner, who has made himself immortal by the introduction of the cow-pox to protect the human family from the dreadful scourge which prior to that annually swept to the grave nearly half a million of the European population, and mutilated and disfigured as many more; Howard, the prison reformer, and Count Rumford, William Thompson, of New Hampshire, the Bavarian Lieutenant-General and philosopher, who gave bread and labor to the poor by his improvements, were of this age, and co-workers in medical reform. A long list of other names might be added, which would form a galaxy more brilliant than any the world has ever seen.

A division in the various branches of medicine now came into more general use, and men devoted themselves to special departments, and consequently a higher degree of perfection obtained than had hitherto. Abercrombie, upon the Brain; Lænnec, upon Diseases of the Chest; Hunter, upon Anatomy, Surgery, and (Syphilis;) Good, on Practice; Bird, on the Urinary Organs; Lawrence, Scarpa, Travers, and Richter, on Operative Surgery, and Diseases of the Eye; Cooper on Surgery; Desault and Bichat, the former on Surgery, and the latter upon the Membranes, Life and Death, and upon Anatomy and Physiology. A mere recital of these great names, familiar to us all as household words, sufficiently indicate the progress of medical science in their age. It was the era of intellectual growth and progression. It was the Augustan age of medical science; the crowning glory of all preceding epochs, and the volcanic upheaval of slumbering minds from the womb of time, as the precious metals are thrown up from the deep caverns of earth. *Salve magna parens virum.* In our own country, we have had Physick, and Rush, and Warren, to represent this age. The present century has not lost the impetus given by the last, and improvements have been made in the pathology and treatment of diseases that now impress us as perfect, but which, no doubt, in the future, and in a more advanced stage of medicine,

will be found as imperfect as many of the adopted theories and practice of former times, which have yielded to advancement. Since most of those before us have entered the profession, especial improvement has been made in the treatment of diseases peculiar to women; and for this we are indebted to no one so much as to Bennett, whose researches (in uterine pathology) have excelled those of Montgomery and Kennedy, and, in fact, all others. The pathology of inflammation and congestion has induced a most wonderful change in the treatment of diseases within the last few years, and the physician can now prescribe with more assurance to himself and satisfaction to his patient. He knows what he does; he travels a plain and well-known road in the bright light of a noonday sun. He discriminates and comprehends the pathological conditions before him, and treats inflammation as such, and congestion as such. When the Humoralists and the Solidists contended for supremacy in their respective doctrines, each one attributed all morbid phenomena to his own theory. Now, full credit is yielded to the influence of each and all the parts and elements of the human body—all necessary to life; all suffering, directly or indirectly, in disease.

Our researches are conducted with more philosophy. We study by analysis and synthesis. We separate to ultimate and known parts, and again combine in order; study and view all separately, and then combine and study the whole—their action, relation, and dependence one upon the other.

Men of sense no longer attribute to a single cause all disease, and to a single medicine a cure for all. The blood has been studied to its ultimate elements. The solids have been studied in like manner; and the action of remedies upon each have been thoroughly tested. But from these various *isms* light has been shed upon the science. From Homœopathy the profession has learned to give less medicine, and with greater exactness. From Hydropathy we have learned the value of water, externally and internally. But a few years since, the fevered patient thirsted, but was excluded from drink. In fact, in all ages, God's freest and best gifts, air and water, have been excluded from use to an extent unwarranted by science or common sense. From the

Thompsonian doctrine we have learned something of the value of the application of heat and moisture and stimulating applications. Hence, theories and doctrines which seem foolish and and unwise have their agencies to perform in working out good. Even to combat them requires thought and investigation. We have ourselves seen a change in pathology and therapeutical applications in almost every disease. We have witnessed the struggle and supremacy of science over ignorance; all of which has given a large per cent. of the saving of life over former years. The pathology and treatment of every variety of fever, of pneumonia, of dysentery, and, in fact, of nearly every disease, has changed, or undergone great improvement. WATSON, and TODD, and GRAVES, and BENNETT, and PARKER, RICORD, STANLEY, and WILLIAMS, and a thousand other glorious names, have given a new era in their respective fields of study and investigation.

Genius and learning is concentrated to special departments of our science; that has given a perfection that could not have been expected from universal devotion to the expanded fields, too large for the comprehension of any one mind; too extended for the brief span of life allotted to man.

And now, gentlemen, what is the duty devolving upon us? Clearly, it is to commence the great unfinished work of those who have preceded us, and to carry it on to the glory and honor of our profession, and to the welfare and happiness of mankind. Each one should be *vir probus medendi peritus*—an honest man instructed in the art of healing. He should be an earnest man with enlarged and catholic views in all that pertains to learning; in all that pertains to human life, and human disease. He should remember that his own sphere, whether in the country, the hamlet, or village, requires the same knowledge, the same thought, as that of those in the great cities of the earth: for the same complex diseases and accidents are presented for his treatment, his investigation, his decision and management, to those. Locality does not change the size of the brain, does not affect thought, but may stimulate it to action, and excite it to labor. All may enjoy alike the experience

and the ideas of all preceding ages, and by reflection and the cultivation of the judgement, may analyze, arrange, and use them to advantage.

Practical medicine involves the knowledge of all that is known of the science of medicine, and whether good or bad, depends upon the proper use of that knowledge.

We have yet much to learn, and we should, and may, all become investigators, improvers, and teachers. Specific inflammation will in all probability be extended beyond its present sphere. That of rheumatism, of syphilis, and variola, may be made applicable to other forms now regarded simple, but differing from them. Hygiene will be improved, an increased knowledge of atmospheric influences will aid us in bringing to light causes of disease now unknown. The now hidden mysteries of epidemics will yet be made plain, simple, and appreciable.

The bloody war from which we have just emerged has given no less luster to hygiene, alimentation, and the treatment of wounds induced by projectiles of improved character, than it has to the settlement of constitutional liberty. This age is one of progression; the fire of knowledge is consuming the accumulated rubbish of ages, and while the heavens and the earth are lit up by it, let us individually, and as a society, seize upon it, and make it brighter and brighter, until disease shall acknowledge our strength and power, and man shall go to the end of his three-score years and ten without its impairment, and shall die alone from expended vital force, and the fiat of the God who made and controls and governs all things.

Havard Medical College.—Dr. James C. White, the talented junior editor of the *Boston Medical & Surgical Journal*, has retired, in order to accept an adjunct professorship of Medical Chemistry, in the Harvard Medical School.

Milk Consumed in New York and Vicinity.—The milk consumed in the city of New York and its immediate vicinity, is estimated at an average of three thousands quarts a day.

Death of Dr. W. Brinton.—Dr. William Brinton, F.R.S., the distinguished London physician, died of uræmia, on the 18th of January, aged 43 years.

ARTICLE XVIII.

SUSPENDED DEVELOPMENT IN TWIN PREGNANCIES.

By M. M. EATON, M.D., Peoria, Ill.

In the *May No.* of the *Chicago Medical Journal* for 1864, Vol. 21, No. 5, page 206, I reported a case that I attended, where a lady was delivered of a fœtus of about two months development, about two hours previous to her being delivered of a still-born fully developed child, at full term.

The past summer, having had another case of a similar nature, I thought I would report this also, simply to add an item to accumulating experience on the physiology and pathology of gestation; such cases being of special interest to the pathologist, and not entirely void of interest to the general practitioner.

Case II. Was called, August 14, 1866, to attend Mrs. H., living on North A—— St. Found her to be about 21 years of age, native of Illinois, in labor with her first child. She stated that she had always enjoyed good health, and she had the appearance of being in perfect health. On making an examination, I discovered the head of the child presenting to the os uteri, which was dilated about $2\frac{1}{2}$ inches, with a gristly substance hanging from the os, an inch or more in length. This, by more careful manipulation, I discovered to be the hand and arm of a small fœtus. I then made slight traction in the absence of the pain, and the fœtus was delivered. It was of the size of a three months fœtus, was not decomposed. The funis consisted simply of a slender membrane, without any appearance of bloodvessels. I should state that the amniotic fluid had been previously discharged. The labor now progressed naturally, and a fully developed living girl was delivered within an hour. The mother recovered without any trouble; the child still lives, a stout and hearty child.

Upon delivering the placenta, I could discover no indication

of the attachment of the funis of the fœtus to the placental surface. I have these two specimens of arrested development carefully preserved in alcohol. Now, the question arises, what caused the suspension of development in one and not in the other of these twins?

ARTICLE XIX.

THE INTERIOR OF THE URETHRA VIEWED BY A MAGNESIUM LIGHT.

BY E. ANDREWS, A.M., M.D., Prof. of Surgery in Chicago Med. College.

The invention of the endoscope, simultaneously by a French and by a Dublin surgeon, has opened a new field, both in the pathology and treatment of the urethra. The endoscope consists of a lamp, a perforated mirror, and an urethral tube. These, when combined, throw a condensed light into the urethra, and enable the surgeon to inspect every part of it. One of the important fruits of this instrument is, the discovery that the chronic inflammation remaining after certain cases of gonorrhœa is granular in its character, and is, in fact, the same disease as granular conjunctivitis, granular laryngitis, and granular inflammation of the cervix uteri.

Some months ago, I had an endoscope constructed after the Parisian plan, and used it with some degree of satisfaction; but there is often a deficiency of light in these instruments, rendering the view unsatisfactory, unless all parts are in perfect order. Seeking to overcome this evil, I one day procured some small magnesium wire, which, when held in the flame of a lamp, burns with a white light, whose brilliancy dazzles like the glare of the sun at noonday. Introducing the endoscope into the urethra of a patient, I caused a friend to insert the wire into the flame of the lamp. The result was to illuminate the urethra magnificently. The mucous membrane, with every little fold or patch of varied color, was as plainly in view as could possibly be desired. It could not have been seen any better, had it

been dissected and laid in the sunlight. By gradually withdrawing the tube, the whole of the canal may successively be seen as it collapses across the end of the tube. Seeing the perfection of this illumination, I have ordered a spring and some small wheel-work attached to the lamp, so that the wire may be made to advance into the flame without the help of an assistant. In this way, no doubt, the difficulty of the illumination will be fully overcome, and the urethra can be inspected almost as easily, and quite as perfectly, as the tongue.

Selections.

A HISTORY OF THE BREAK-BONE FEVER AS IT PREVAILED IN THE CITY OF MONTGOMERY, ALABAMA, DURING THE SUMMER OF 1866.

By R. FRASER MICHEL, M.D.

Read before the Medical and Surgical Society of Montgomery, January 7th, 1867.

The city of Montgomery was visited during the past summer by an epidemic of break-bone fever, which taxed the energies of the profession to their utmost extent.

The reader will see, as we progress in the narrative, that we have correctly named the disease. Many of the most prominent symptoms characterizing the summer and autumunal fever of the West India Islands, in 1827, were absent, as well as those marking the epidemic which prevailed in the southern sections of the United States in 1828.

Prof. Dickson, from whose able pen we derive much that we know of dengue, is so clear in his symptomatology of this disease, that we incline to the opinion that the epidemic we have just passed through was not one of dengue, but rather resembled what Dr. Rush has described as having occurred in Philadelphia in 1780, and Drs. Dickson, Wragg, Happoldt, and Arnold, as prevailing in Charleston and Savannah, in 1850.

We concur fully in the opinion expressed by Dr. C. Happoldt in his inaugural dissertation, published in the *Charleston Medical Journal*, for 1851, when he says:—"If the essential and characteristic symptoms of dengue be, a fever of nearly uni-

form duration, preceded by arthritic inflammation, and succeeded, after an interval, generally regular, by a secondary fever, which is almost invariably attended by a uniform eruption, and followed by violent pains of a rheumatic character, must it not be entirely distinct from a form of disease in which these symptoms are either *absent*, or their order of succession entirely different."

The first case of break-bone fever in Montgomery, occurred on the 7th of September, 1866, in the practice of Dr. J., in the person of Mr. M. G., who had not left the city for some months prior to his attack. I was called on the morning of the 8th to see two cases; one, a captain of a steamboat, running between Mobile and Montgomery; the other, a lady, just returned from the Springs, near Macon, Georgia, where she had been spending the summer. Here we see, that, at the outset, three persons were attacked, almost simultaneously, in the eastern, northern, and middle part of our city; and in ten days one hundred or more cases were under treatment. A sudden invasion followed by such rapid development, that any attempt to trace the disease from patient to patient must necessarily end in failure.

The last case we know of, terminated about the middle of November. The epidemic lasted seventy days, being at its height about the middle of October. There was hardly a family exempt; many in which not a member, white or black, escaped;—not a house, from those crowning the beautiful hills which encircle our city, to the banks of the Alabama, but was visited by this searching malady.

I may mention here, that prior to the occurrence of the epidemic, some of the physicians observed a few cases of scarlatina simplex; these cases were easily managed, and occurred during the months of May and June. In July and August, we had intermittent and bilious remittent fever, the type of the latter unusually severe. It is a noteworthy coincidence that in 1850, the same thing was observed to have occurred in Charleston and Savannah; and, as in 1850, Asiatic cholera again visited the North and West, as the cities of New York, Cincinnati, and St. Louis can testify.

Most of the cases began with fever, without previous *malaise* or chill, accompanied by severe pain in the forehead and small of the back, hot dry skin, smoky eye, full but not very frequent pulse; tongue often clean, occasionally red, in most of the cases covered with a yellowish-brown fur, without thirst. This condition usually lasted about eight hours, when the pa-

tient would complain of violent muscular pains, more frequent in the lower than upper extremities, followed by intense nausea and vomiting, lasting about 12 hours; the pulse falling gradually to 50 or 60 beats in a minute. Profuse perspiration would then break out over the entire surface, a slight eruption make its appearance, the gastric disturbance disappear, the pains gradually subside, and the patient, though weak, be able to resume his usual avocations; frequently returning to his accustomed place at the desk or behind the counter, forty-eight hours after the invasion of the disease; many, indeed, recovering before a physician could be obtained.

But while this description is a true history of most of the cases (in the proportion, at least, of six out of ten), we observed others of a severer character.

These graver cases of break-bone were preceded by *malaise* for two or three days, followed by chill more or less marked. And here we would call attention to the fact, that where the patient had passed through one or more attacks of malarial fever during the summer, he would not have simple rigor, but a severe chill, lasting in some instances at least an hour; then fever would supervene with its usual symptoms—pulse full, abrupt, rarely over one hundred to the minute; skin hot, dry, with a reddish hue, indicating tendency to capillary congestion; the heat so pungent, indeed, as to burn the hand when laid upon it. Eyes suffused and watery, pain upon moving these organs, especially when rolling them upwards, or when pressure was made upon them; sometimes intolerance of light was a prominent symptom.

Pain in the head, frequently supra-orbital, though in some of the cases pain of a darting kind was experienced; and as Dr. Wragg has described as existing in some of his cases in 1850, "so severe and darting that the patients said they felt as if a sharp instrument was thrust through the brain," and terminating in many cases in delirium. Pains in the limbs, particularly in the lower extremities; not confined, however, to the joints, but rather extending to the muscles. These pains were so severe as to prevent sleep, and several of our patients enjoyed no rest the first two nights of their attack.

The pain in the head produced great uneasiness in the region of the ear; and in certain cases a neuralgic affection of the fifth pair of nerves, was a characteristic symptom, giving rise to severe tic douloureux, as well as earache, which was attended in some cases by slight deafness.

The abdominal pains which we witnessed as occurring in the

Charleston epidemic in 1850, and which very frequently induced us to believe that we had a case of gastritis or enteritis to deal with, were entirely absent in this epidemic, so far as we are able to discover; and the dyspnœa produced by intercostal pain, which was observed as an almost constant attendant of break-bone, in Charleston, in 1850, was never seen during the past summer. The tongue, which at first, was natural, soon became covered with a greyish-brown coating; and the foul, disgusting taste in the mouth, lasting, in many cases, a week after convalesence was established, beggars description—"Oh! what a taste I have in my mouth!" was a constant exclamation. This symptom was, in some cases, attended by profuse salivation to such an extent as to cause some of our patients obstinately to insist that we had given mercurial preparations in the course of our treatment. The continual spitting reminded us very much of the Minorca fever of 1733 and 1748, as described by Cleghorn; which, by the way, Dr. Rush regarded as similar to his epidemic fever of 1780 (break-bone). In one instance (Dr. O.) we are convinced at least a gallon of salvia was secreted in twenty-four hours. Much nausea and gagging occurring in all of these cases, and violent stomatitis sometimes supervening; the abrasion of the buccal mucous membrane in some instances being very extensive, requiring prompt local treatment. We are particular in calling attention to this symptom (sore mouth), as in the epidemic in Charleston, in 1850, it was almost entirely absent.

The sense of taste being so much deranged, we are not surprised to learn from some of our patients that odors were not recognizable, and in others that certain odors predominated; for instance, one of our female patients told us that everything smelt like the muskmelon or cantelope. Her idiosyncrasy with regard to that delicious fruit was peculiar; she detested it extremely, and could detect one if concealed in any part of the house. The nausea, in almost every instance, was attended by profuse bilious vomiting, in many cases, very persistent, lasting from the chill until convalescence.

What we have so far described may be regarded as the first *stadium* of the disease; in some cases this embraced a period of from six to twelve hours, in others from one to three days. We saw no case during the epidemic in which this stage lasted more than three days; while we know that in 1850, we would frequently see it cover a space of five. The fever now subsiding, a perspiration would be observed covering the entire surface; sleep soon supervened of a refreshing character, but

attended or followed by an eruption which would usually cover the face and forehead, extending, in some instances, over the entire surface, and with it a feeling of formication, burning in the palms of the hands and soles of the feet. The perspiration, just alluded to, emitted a very disagreeable odor in some few cases. A professional friend informs us that one of his patients insisted upon continual change of bed-linen, the odor, which he pronounced "intolerable," he described as of a strongly urinous character.

The eruption varied in almost every case, resembling, in many instances, that of scarlet fever, and accompanied with a slight anginose embarrassment. Then again an erysipelatous blush would suffuse the face and hands; so persistent in some cases as to excite the belief that desquamation must result; but passing off slowly during convalescence, leaving the cuticle uninjured. In other cases, a lichenoid or miliary eruption, resembling prickly-heat or nettle-rash, with intense itching, would come out; and when this condition obtained in the young subject, desquamation was sometimes extensive, affecting the tissues beneath the cuticle. A professional friend informs us that in one of his cases, his little patient lost the nails of the toes and fingers. We saw no cases resembling rubeola, or impetigo, no petechial, variolous, phlegmonoid, purpurous, or papular eruption. And while referring to petechiæ, let us say we did not witness a case of hæmorrhage (as we did in 1850), from the gums, fauces, stomach, or bowels; nor did I hear of any during the epidemic, except a few cases of epistaxis.

These eruptions occurred during the second stage in most of the cases; but they would occasionally make their appearance during the febrile paroxysm, and extend even into convalescence. They had no special predilection for any particular part of the body, sometimes appearing on the forehead, face, and upper part of the chest, but just as often on the extremities or abdomen. In some instances there was no eruption to be observed, but towards the latter part of the epidemic there was hardly a case that did not present it in a well marked degree.

Our attention was particularly directed to the eruption in the negro cases, from what Dr. Dickson observed with reference to this class; and we endorse the fact, that very few negroes suffered in this way. We attended twenty-three cases among the blacks, and only two presented an eruption. The erysipelatous blush alluded to above, in some instances covered the hands entirely, causing them to become extremely sensitive, so much so as to entirely prevent their use as prehensile

organs. When there was any desquamation, of course the itching of the skin was present; in some cases severe and intolerable, and attended with swelling of the face.

The convalescence was slow, lasting a week or ten days, with anorexia. We saw no case during this epidemic which reminded us of the extremely slow convalescence of some of our cases of break-bone fever in Charleston, in 1850. It was not unusual then for a patient to take three weeks or a month to convalesce. Nor did any case under our care end in typhoid disease. There was no tottering or irregular locomotion; no staggering, uncertain walk, requiring the use of a crutch or stick, as we often see in dengue; no stiff affected gait, nothing peculiar. When you met a friend whose absence from his accustomed occupation had been observed, you could not tell by any external sign that he had had break-bone fever; you would only ascertain the fact by making inquiry to that effect.

And, now, the question naturally suggests itself, were there any cases of relapse? Very few, we answer, if any. We heard of none, at least, and would invite attention in passing, to the fact, that this was a common occurrence in the epidemic of break-bone fever in 1850. Dr. Wragg, in his able essay on this subject, says: "Another remarkable feature of this fever was the tendency to relapse, or the ease with which it was brought back by premature exercise, fatigue, or any kind of exposure. We have seen it recur under these circumstances, as often as three times, and on each return, with marked aggravation of all the symptoms. Often, when the first attack had been exceedingly mild, the subsequent ones would be excessively severe, and always of longer duration than the first." Here there is a marked difference between the two epidemics of 1850 and 1866; we, however, believe the diseases were the same, though in some features they may have differed.

As during epidemics of Asiatic cholera, there are cases (if they can be called such) in which slight pain is felt in the abdomen, and even considerable borborigmus is apparent without any other symptoms characterizing this disease; we saw many patients, who, with no fever, had some one or more of the signs of the epidemic disease, as vertigo, nausea, syncope, deafness, pain in the head, back, and limbs, followed by lassitude, *the eruption not appearing*. We must call these cases *break-bone fever without the fever*, and we incline to the opinion that these symptoms were sufficient to give those who so suffered, immunity from the severer form of the disease during the epidemic. Persons of all ages were subject to the disease—the

child at the breast, and the venerable elder of four score years, both male and female, white and black; and it created a surprise to see the aged recover so promptly from the effects of the malady; indeed, an old professional friend remarked, "that he was going down the hill very fast before he was attacked, but since he had recovered he felt better than he had been for years, and he believed he was a stronger man."

Some of the sequelæ in the Charleston epidemic of 1850 were absent in this—for instance—the boils, carabuncles, and abscesses were not found. The enlarged and deformed joints with extensive effusion were rarely seen. The remarkable loss of hair was not present in this epidemic, and even during the attack some of the symptoms of the Charleston break-bone were slight or totally wanting — for instance — the intense nervous trembling, which marked the onset of the disease, the jerking and twitching during the attack were not witnessed; and, though *one* case of the disease was ushered in with convulsions, no death from this complication was recorded. We heard of no pregnant women aborting, as in dengue, from the suffering and pain induced by the fever, and though, as we have already noticed, audition was much impaired, no case of permanent deafness was observed. During the progress of this disease, we saw no case developing those hallucinations, resembling the demons of *mania-a-potu*, so painfully common in 1850. On the other hand, we would invite attention to the extreme debility and exhaustion in which our patients were left, resembling the epidemic just alluded to, and in some cases, when contrasted with the duration and want of intensity of the malady, truly surprising. In many cases the patient was even threatened with syncope, upon suddenly changing from the horizontal to the erect position, showing the enfeebled condition of the heart.

Pavi passu with the epidemic, we observed many cases of ophthalmia, some occurring among our break-bone patients, and appearing as a prominent symptom. Most of the cases engrafted upon the epidemic disease were quite severe and stubborn in character—the lids extremely grandulated, and in some of the severer cases, corneitis, sclerotitis, and even iritis, with great photophobia, were observed.

Upon the causes of the epidemic we will have little to say. The atmospheric changes, prior to, and during the epidemic, may lead those more conversant with meteorology to form some opinion, however, and we will, therefore, give as accurate an account of them as the limit of this paper will permit.

The spring was peculiarly cold, much more so than is usually observed in this latitude, and the cool weather continued into June. We had, during this season, more rain than usual, and the winds were from the south-west almost exclusively. After the middle of July, the weather became hot, and continued *very hot* until the middle of September. An old and observant citizen tells us that it was hotter in Montgomery during that period than he had ever felt it before, and he resided in the place forty-seven years. The thermometer ranged in mid-day between 90° and 95°. He called our attention to another fact in connection with this heat, worthy of notice. "That during that time we had less thunder and lightning than he had ever known before;" an indication of the peculiar electrical condition of the atmosphere. The nights were oppressively hot, the thermometer, in the early part of the night, registering usually from 85° to 87° F. During this time, that is from the middle of July to the middle of September, the winds were westerly and easterly alternately. At this time the drought was excessive and destructive to vegatation, as the scanty crops demonstrate; and, singular to relate, from the latter part of August to the middle of October, during certain spells, that is, when the wind would suddenly shift from west to east, heavy falls of rain ensued, deluging the country. Slight frost was observed in and around the city on the 5th of November, but not severe enough to destroy vegetation, and it was not until the night of the 21st of November, that the cold was intense enough to kill garden plants. Here our epidemic differed from dengue. It did not occur in a pleasant, cool, and temperate season, nor did it select the winter or early spring, as is its wont, nor were any foggy mornings to be observed.

Whilst treating of the causes of this disease, it is, perhaps, proper to add that we had an epidemic of small pox, beginning in the spring of 1865, and ending in the spring of 1866. This, associated with what we have already mentioned, "that several cases of scarlatina simplex occurred during May and June." would lead us to ask, what impression this condition of things could make upon the atmosphere of Montgomery? It appears to us that it would be very rational to believe, that if we had a *fever*, the skin would play a very prominent and important part in its history.

At this point, we would request the reader to examine the character of the summer and fall seasons in Charleston, in 1850, so clearly and accurately recorded by Dr. W. T. Wragg, in his paper on Break-bone Fever, as well as the same seasons

in Philadelphia, in 1780, described by Dr. Rush, and in Montgomery, in 1866, as now furnished by us; and I think a striking parallel will be observed, or, to say the least, a very singular coincidence.

During the epidemic, the usual intermittent and remittent fevers continued; they were more extensive in their range, however, covering a much larger surface than ever before. Certain localities, which hitherto had been regarded as healthy, and which were used as summer resorts by the citizens of Montgomery, were quite sickly this summer, and persons did not know where to take refuge to insure health. This condition of things (an epidemic of break-bone fever, accompanied by intermittent and remittent fever) was very embarrassing, and the physician could not be too cautious in pronouncing dogmatically upon the various cases which marshalled themselves before him for treatment. We saw many cases of the epidemic fever remitting and even intermitting.

We now come to the most important part of our discussion—the pathology of the disease. This is always a difficult question to determine with regard to break-bone fever; the fact, that no deaths occurred, and that consequently no *post mortem* examinations were made, is one reason of its obscurity. *No death occurred from this disease during the epidemic*, and nearly half the population were afflicted with it.

We incline to the opinion already expressed by others, that the disease is located in the nervous system, and that, secondarily, the cutaneous surface becomes affected—*a nervo-cutaneous* affection. That the nervous system is first affected I have no doubt: observe the pain, tremor, rigor, delirium, and other phenomena already described; then the cutaneous system, as is demonstrated, first, by the feeble capillary circulation, the reddened surface, the eruptions, the desquamation, and the intolerable itching, almost always observed during convalesence.

How any one can confound such a disease with yellow fever, when we consider the uræmic poisoning, the terrific hemorrhages from eyes, gums, stomach, and intestines and ovaries, which occur in the latter; or, on the other hand, with bilious remittent, so well characterized by its *post mortem* appearances, the inflamed gastro-intestinal mucous membrane, the enlarged liver and engorged spleen, seems to us matter of surprise. No! Break-bone fever is a peculiar affection, and one which deserves more notice than it has hitherto attracted.

The epidemic may have been taken for dengue, and to this point we would invite special attention. Prof. Samuel Henry

Dickson, thus describes dengue, page 606, vol. II: "Dengue usually made its invasion with pain, stiffness, and swelling of some of the smaller joints, often of the muscles of a limb, rigidity of the neck, aching of the back and loins. These pains were followed, after an uncertain, though generally brief period, by headache, suffusion of the eyes; abrupt, full, frequent, pulse; hot, pungent, dry skin, restlessness, thirst, and other tokens of febrile excitement. The fever did not remit, but declined and disappeared in a great majority of cases on the second or third day. In this early stage the tongue was generally clean, and the stomach quiet; but sometimes there was nausea or even vomiting, the determination to the head was occasionally violent. Instances occurred in which delirium was among the first symptoms, coming on at the commencement and enduring until the subsidence of the febrile paroxysm. At this time the skin lost its heat and dryness, becoming relaxed, with abundant perspiration, and the local pains were all lessened in degree. A sort of miliary eruption, or rash in some persons, attended this sweating stage, and in a few others preceded both the local pains and the fever. It was, however, as connected with this first stage of dengue, a very inconstant symptom, seeming rather a coincidence than a symptom. The pains of the joints and muscles which, as has been said, were diminished in severity at the subsidence of the febrile exacerbation, did not go off entirely; a degree of swelling, stiffness, and tenderness of the affected parts remaining permanently, though varying much in intensity in different individuals. This condition of things constituted a sort of deceptive interval between what may be described as the first and second stages of this strange disease. Many now believed themselves to have passed through the attack, and attempted to resume their ordinary occupations; but soon had occasion to discover that their sufferings were by no means at an end. On the third or fourth day, there being no fever present, or a very obscure degree of it, the tongue would begin to be coated with a yellowish fur, and the stomach would become distressed, uneasy, and irritable. The patient was now low-spirited, fretful, and anxious. Vomiting come on in some, with great languor, lassitude, debility, and restlessness at night. This was regarded as the most oppressive and insufferable of the stages of the malady. On the fifth or sixth day from the invasion, the period varying somewhat in different individuals, the annoying symptoms just described were relieved by the coming out of an abundant eruption, met with so constantly and in so very great proportion of

the cases, that it clearly demands to be considered a characteristic and essential circumstance in the history of the disease. It consisted of minute papulæ, somewhat elevated, of a florid red, and distributed in irregularly shaped patches; the feet and hands being somewhat swollen, with a sense of numbness and thickening. It appeared first on the face, then on the trunk and thighs, gradually spreading to the extremities. It resembled scarlatina more than measles, in the hue and aspect of the skin, but was less diffused or confluent than either. When fully developed, it was attended with some itching and burning of the surface, and at this time a second febrile paroxysm came on, with return or aggravation of the muscular and arthritic pains. Inflammation and enlargement of the lymphatic glands in the neck, axilla, and groin, attended in a good many cases; these parts being apt to continue swollen and painful for some time after convalesence was finally established. In a few instances suppuration of these tumors took place. The eruption disappeared after two or three days' duration, becoming gradually paler, with some desquamation of the cuticle. Of all the symptoms of dengue the affection of the joints was the most tenacious and troublesome, adhering for weeks to some patients, and constituting a sort of permanent lameness or loss of mobility. Nay, even so late as 1835, some of the population of cities visited by this plague, persisted in speaking of the rheumatic or quasi-rheumatic decrepitude and pain under which they labored, as the effects of dengue.

"Pregnant women, when attacked, were very liable to abortion, and a remarkable number of miscarriages and premature labors occurred. A sore mouth was among the frequent symptoms, ulcers formed in the mouth. Dengue is to be classed properly among the exanthemata. It is an eruptive fever of distinct and specific character. Its essential symptoms are, in the first stage, a painful affection of the joints and muscles; and, in the second, divided by an interval obvious and sufficiently regular, a cutaneous eruption. The arthritic inflammation of the first stages was attended by fever of the ordinary inflammatory type, of twenty-four to forty-eight hours' duration. The eruption was preceded, as is usual in the exanthemata, by considerable gastric oppression, with nausea, and sometimes vomiting."

We must regard the epidemic we have described as differing in many respects from the dengue, so beautifully portrayed by that accomplished scholar and physician, Prof. Dickson.

Look carefully at the premonitory symptoms, the kind and severity of the pains which marked the onset, continuance, and

termination of the two diseases. Observe the intermission, not accidental, not occurring by chance, but regular, never deviating, always coming to the relief of the sufferer, and to be counted with certainity by the hands of the clock. Then examine the secondary fever, accompanied always by an eruption "that clearly demands to be considered a characteristic and essential circumstance in the history of the disease." Look at the prompt convalescence of dengue, with the deformed and enlarged joints, the patient staggering about, bald-headed, with stick in one hand, or crutch in both—remark the common accident of abortions and premature labors, and then say if this condition of things resembles, however remotely, the epidemic we have just passed through.

We believe that the fever described by Dickson, Wragg, Happoldt, and Arnold, in 1850, is the disease we had to contend against this summer in Montgomery; beginning in the nervous and cutaneous system, and not in the ligamentous and fibrous.

It may not be irrelevant to present at this point the description of the epidemic fever which occurred in Philadelphia, in 1780, given by Dr. Rush: "It affected all ages and both sexes. Medical men would seem to have been specially liable to it. No other febrile disease was observed during its prevalence. It came on sometimes with rigor, seldom with a chill. Many instances occurred in which it was introduced by delirium. The pains which accompanied it were excessively severe in the head, back, and limbs; in some they affected the neck and arms, and in one case produced a difficulty of moving the fingers of the right hand. Hence the disease was sometimes believed to be a rheumatism, but its more general name among all classes of people was the break-bone fever. A nausea universally, and in certain instances vomiting attended. The pulse was full and quick, but never hard; there was little or no thirst. A rash often appeared on the third or fourth day, accompanied by a burning in the palms of the hands and soles of the feet. Convalescence was slow and tedious. The disease was seldom fatal. The treatment required was singularly mild." Now, we see in this description of Dr. Rush, an almost accurate account of the fever we witnessed in the city of Montgomery, in 1866, and in Charleston, in 1850.

Frost (as it always has done) terminated the epidemic. After the middle of November we heard of no new case. No stranger coming into the atmosphere after frost, *contracted* the disease, although those who had spent the summer here were

liable to an attack a few days after this truly welcome visitor.

We do think it contagious;—many cases found their way to the different villages and towns in the neighborhood, by railroad and stage, or slowly along the beautiful waters of the Alabama; but we heard no voice echoing its painful though harmless presence as epidemic in any of the garden spots of the State.

The period of incubation varied from five days to a week; though we knew of one patient who was attacked forty-eight hours after his arrival in Montgomery.

The prognosis was, of course, favorable, for when a disease never destroys life, or leaves any organ of the body seriously damaged, we are compelled, no matter how painful or seemingly severe it may be, to pronounce it harmless.

We would remark, in this connection, that although cases of bilious remittent, some of them congestive, occurred during the summer, we heard of no case of break-bone assuming the congestive type; a fact worthy of special notice.

With regard to the treatment of this disease, there is of course little to be said; almost all the physicians here treated it according to the *medecine expectant.*

If we arrived in time to find our patient with chill, warm stimulating applications were made to the spine and extremities; we preferred the spirits of turpentine. A warm foot-bath was an excellent adjuvant, and with a few blankets thrown over the patient, we awaited the cessation of this symptom. During the fever which followed, we did no more than attempt to relieve the troublesome symptoms as they arose. If our patient was costive, the bowels were evacuated with an enema, sometimes by laxatives, a sedlitz powder, or a dose of castor oil. In this stage refrigerants were freely used; cool iced lemonade, and sponging the entire surface of the body with vinegar and water; cold applications to the head, as by shower-bath and ice in bladders to the frontal surface; frequently pepper plasters to the temples gave relief. The nausea and vomiting was quited by sinapisms over the epigastric region, and by the internal administration of magnesia or lime-water. When the fever was subsiding, a warm infusion of boneset was ordered; or, what our patients preferred, hot lemonade. In some of the cases where an intermission in the febrile paroxysm was observed, the administration of fifteen grains of the sulphate of quinine in divided doses seemed to control the disease, and to hasten convalesence.

In those cases in which the throat was affected, a gargle of

the chlorate of potash was advised, or our patient permitted to dissolve in the mouth every hour, until relieved, the chlorate of potash lozenger prepared by Hegeman & Co. The detestable taste in the mouth, which persisted even after convalescence, is difficult of relief. We found that claret wine, freely administered, gave more speedy relief than anything else. The administration of opium lessened the muscular pain, promoted the action of the skin, and induced sleep. To relieve the neuralgic pains, the sulphate of morphia injected hypodermically, proved eminently successful. The application of olive oil and lime water, as well as alkaline washes to the skin, were found the best agents to relieve the burning and itching of that sentient surface.

The epidemic was certainly a mild one, when compared to that we witnessed in Charleston, South Carolina, in 1850; but in all its essential features, it resembled the latter so closely, that we think we must, without hesitation, class it with that form of epidemic fevers which so far seem exclusively confined to this Continent. The English and French writers say nothing of it. As a disease generally recognized, or of wide-spread, or even occasional occurrence, it seems to be unknown in Europe. We have therefore thought it not unwise to put the account of this epidemic on record, if only for the sake of the future medical historian.—*Southern Journal of Medical Sciences.*

THE MEDICAL USE OF ELECTRICITY.

By G. M. BEARD, M.D., and A. D. ROCKWELL, M.D., New York.

It was once remarked by a distinguished philosopher that we may be sure that a science is in its infancy when its advocates are particularly dogmatic in the expression of their beliefs.

Judged by this standard, the science of the medical use of electricity is just emerging from infancy into childhood, for its disciples are far less positive in the declaration of their views in regard to the unsettled points connected with it, than were the original investigators fifteen years ago. A brief survey of the history of recent explorations in this department will fully explain our meaning. In 1850, Duchenne, of Boulogne, published a work entitled, "Exposition d'une Nouvelle Methode de Galvanization, dite Galvanization Localiseé," in

which he announced the leading idea of his system, namely, that "one can localize the electric stream over a fixed point under the skin, if the end of a conductor be covered with a moist sponge, and strongly pressed upon the skin." In 1855, he published another work, an epitome of five years experience, entitled, "De l'Electrization Localiseé et de son Application à la Physiologie, à la Pathologie, et à la Therapeutique." This book excited not a little attention, and really created an era in medical science. It aroused the enthusiasm of the author's countrymen, who had the opportunity of witnessing his brilliant demonstrations, and was abridged for the German physicians, by Dr. Erdmann. But the number of those who were inspired to enter the list as investigators was comparatively small. Like all the original explorers in this department, Duchenne laid special stress on his physiological experiments. At no era of medical science had there been found any considerable number in any county who were willing and able to devote their lives to purely experimental researches that achieve no direct practical results. While Duchenne had astonished both himself and the scientific world by the novelty of his experience, neither he nor his admirers were fully alive to the immense therapeutical value of his discoveries. As a consequence, the cause of electro-therapeutics would not be espoused by those who felt compelled to turn all their endeavors to practical account, and but very few of those who warmed into enthusiasm over his demonstrations were willing to occupy themselves exclusively in the same field. But Meyer of Berlin, Baierlacher of Nürnberg, Althaus of London, made a specialty of this department, and have published works in which the method of Duchenne is adopted as the basis. Remak, of Belin, was one of the few who were sufficiently alive to the value of Duchenne's experiments to pursue the subject still further, and in 1855, he embodied his experience in a work entitled, "*Ueber Methodische Electrisirung Gelahmter Muskeln*,"—"On the Methodical Electrization of Paralysed Muscles"—in which he announced a system entirely different from that of Duchenne, and became the leader of an opposite school. The leading idea of his work was this: "That in order to bring a muscle to complete contraction, it is far better to excite its motor nerves than to allow the stream to operate upon the muscular substance itself."

Moreover, he employed the galvanic stream almost entirely, while Duchenne had performed his experiments with the faradaic current. Remak reported astounding cures, but at first

failed in enlisting the sympathy of the profession. Subsequently, however, he learned wisdom by experience, and became more wary in his statements, and calmer in his manner of expression. Gradually the profession accorded to him their confidence, and some of the ablest minds of Germany—among whom we may name Benedict, Schulz, Meyer, Neumann, Rosenthal, Frommhold, and Eulenberg—are numbered among his disciples. For some time a fierce and unreasonable controversy was carried on between Remak and Duchenne, which, both in its character and in its results, singularly reminds one of the fabled story of the knights who quarrelled over the pictures on the opposite side of the public sign. Remak contended for the application of the galvanic stream on the motor nerves, while Duchenne persisted that the best results were obtained with the faradaic, or induced current, on the muscles themselves.

At a public trial in Paris (as we are informed by Garratt), Remak demonstrated on a living subject that so far as producing contraction of a muscle goes, the induced current applied to the motor nerves is far less painful than when applied to the muscular substance. But so far as the general remedial effects of electricity are concerned, both were right, as is now tolerably well established.

So far as is yet ascertained, the remedial effects of electricity, whether employed in the form of galvanization or faradization, are governed by no fixed laws. Experience is our only guide in their use. All the investigations of scientific men have thus far failed in reducing to any system the different therapeutical effects of the galvanic and the faradic or induced currents.

Although there has been not a little speculation on this very theme, and although numberless experiments have been instituted with a view to establishing the superiority of the one or the other, yet we believe that the most progressive and candid of the investigators of the present day are willing to admit that the whole subject is yet in chaos. It has been found that the brilliant results that Remak obtained by the galvanic stream can also be secured by the use of the secondary current, and it has also been found that they are, so far as we can judge, very capricious in their effects, setting at defiance all the attempts of inquiring minds to reduce their employment to a logical system.

Those who are accustomed to use the various kinds of electricity, namely, the galvanic or constant stream from a large number of elements, and the primary and secondary induced

current of the electro-magnetic machine, testify that while all are beneficial, *no one* has been found to be so superior to the others as to justify its exclusive use. It has been thought that the galvanic stream was more serviceable in rheumatic and neuralgic affections, and in paralysis dependent on central nerve derangements; but this is very far from being established

There are cases where at first the induced current acts more speedily than the galvanic stream, which cases, later on, seem to be more amenable to the latter. One day a patient may present himself with a rheumatic disorder that is at once relieved by faradization, and the next day another patient with precisely the same disease, at precisely the same stage, is more speedily aided by galvanization.

More than that, there are cases which, at the beginning of the *seance*, are benefited by galvanization, and before its close yield to faradization. Nay, further, there are instances where one form of electricity seems to irritate for the time being, while the other at once calms and soothes. What, then, is the law of their operation? There is none, so far as can be determined in the present state of our pathological knowledge, and there is no guide to their use except experience. The German investigators have carefully studied the effects of the different forms of electricity in exciting muscular contractions, and they have refined this subject, as it appears to us, to an absurb and profitless excess. Ziemssen has experimented largely on the dead subject, and has ascertained the particular border points that are most susceptible to the electrical influence.

It has been very clearly established that muscular contraction is produced more completely and with less pain when the electrodes are placed on the "border points" where the motor nerve enters the muscle, than when applied to the bellies of the muscles themselves.

With these views of Remak and Ziemssen our experience fully accords. We have found that in certain cases of atrophy and loss of power, where we fail in producing contractions by application directly over the muscles, we do succeed very unaccountably by pressing the fingers along and underneath the borders of the same muscles.

We have found that some inveterate cases of rheumatism that evinced no signs of yielding when the hand was applied in the general way, at once took a favorable turn when the fingers were pressed along and underneath the borders of the muscles concerned.

But important as is this fact, it is hardly worthy of the at-

tention it has received at the hands of some of the German investigators.

Ziemssen and Rosenthal seem to act on the supposition that electricity is chiefly useful in cases of paralysis, whereas its proudest victories has been gained over long-standing dyspepsia, constipation, neuralgia, amenorrhœa, chorea, hysteria, and other disorders connected with enfeebled vital organs, and a deranged nervous system.

On the other hand, we have found that the different forms of paralysis that present themselves to us for treatment give far less speedy and satisfactory results to the electrical treatment than almost any other form of disease. And yet physicians and the layity are possessed with the idea that paralysis is, *par excellence*, the disease that justifies the use of the battery.—Our present knowledge of therapeutical value of the different forms of electricity may be thus summed up:

1st. Galvanization and faradaization are of so nearly equal value in paralytic, rheumatic, and neuralgic affections, that we are hardly justified in employing one to the exclusion of the other. It would seem that the best results are obtained when they are used with alternations and varations, according to the indication of their effects.

2d. Muscular contractions are excited with the least pain and most speedily when the electrode (either a sponge, a metal, or the hand) is applied along the edge of the muscle, and especially at the border point where the motor nerve enters the muscular substance.

3d. The ascending faradaic current has a great power of exciting muscular contractions, and stimulating the nerves, and is especially indicated in local paralysis, anchylosis, and plastic effusions. Applied through the body with the positive pole at the feet, its effects are not unfrequently very disagreeable.

4th. The *descending faradaic current, thoroughly applied, with the negative pole at the feet, is a tonic and corrective of far greater efficacy than any other remedy or combination of remedies now known to science.* Judiciously given, it can never work harm, save in cases of pulmonary tuberculosis, and in such cases we rarely employ it.

5th. The hand is by far the best electrode, and for the following reasons:

(*a*) It is more effective, from its wondrous power of adaptation. The fingers, better than sponge or metallic electrode, can feel their way along the border of the muscles and press towards the deeper tissues.

(*b*) By no other instrument can the patient receive the same quantity of electricity with so little irritatation, particularly when applied on the head, or over any sensitive diseased organ.

6th. *Although paralysis in its different forms is usually more benefited by electricity than by any system of internal medication, it is yet among the least tractable of the various diseases that present themselves for this method of treatment.*

7th. *The diseases which are found to yield most readily and surely to the different forms of electricity in the various modes of application, are neuralgia, dyspepsia, rheumatism of the subacute and chronic varieties, chronic bronchitis, constipation, amenorrhœa, anæmia, hysteria, and general debility.*

8th. The electic streams are of great value as adjuvants in the diagnosis of disease, inasmuch as any deviation from its normal sensitiveness of any part of their influence is readily indicated. In this way we learn where the disease is located, although we may not be able to determine its precise nature.—In order to illustrate more clearly to the profession the method and result of our treatment by faradaization, we propose to give in detail some of the more interesting cases of the various forms of disease in which we have employed it. We can hardly expect that the bare statement of the curative powers of electricity will receive absolute credence without the presentation of some typhical examples.

Even Remak himself (as stated above) at first experienced not a little difficulty in gaining the confidence of scientific men. So easy is it to represent on paper what is very difficult to practically achieve, and so ready are specialists to dignify their own peculiar method of treatment to the exclusion of all others, that we cannot hope for the full appreciation of the wondrous powers of electricity, except by those in the profession who may be led to employ the descending faradaic current as faithfully and persistently as we have ourselves.

Neuralgia.—This horrible affection, which so often disheartens both physician and patient, we have found to yield to the persistent application of electricity, as uniformly, perhaps, as any other disease, unless it may be nervous dyspepsia. Whether it exists either in the weekly or the strong it is always greatly alleviated and generally cured, sometimes by a few applications, in other cases by a protracted treatment.

Indeed, our unexpected success in certain cases did much to stimulate us to make special investigation on the whole subject of electricity.

Case First.—In the latter part of August of last year, Mr.

B——, a broker, down town, came to our office complaining of a severe neuralgia of the back of the head and neck, that had rendered his life miserable for one year and a-half. He had consulted many physicians and had taken much medicine, but had found little relief. He was a tall, well formed, muscular man, with a hard, full face, that suggested great native vigor of constitution.

With not very strong assurance of hope, either on our part or on his, the treatment by the descending faradaic current was recommended and commenced on the 5th of September. He was relieved on the first application, which was a very thorough one, and extended over all the vital organs. On the 8th of September he again came for treatment, and reported himself as much improved. On the 10th, he reported himself as being entirely free from pain. Another application was then made, and he bade us good-bye, preparatory to going into the country. We could hardly believe that the cure could be anything more than temporary, and were not surprised when he again presented himself on his return and informed us that his old enemy had made him another gentle visit.

We gave him another thorough application. A short time since he called at our office, and informed us that up to that time he had been perfectly well.

Case Second.—Miss H. The following case proves that that most distressing and persisting of all neuralgic troubles, tic douloureux, may be cured where medication had failed.

This patient presented herself for treatment in the early part of September, expressing herself, however, as having but little hope of experiencing more than a slight temporary relief.

Previously she had been treated by electricity with some short-lived benefit; sufficient, however, at that time to inspire her with hope. She was doomed to disappointment, for in a very few weeks the paroxysms of intense pain, which before had made her life miserable, returned with greater severity than ever. As she told her story, the sudden, sharp shooting pains in her face would, every few minutes, cause her in agony to hold her speech. To such an extent had this mysterious disease affected her that occasionally her tongue seemed almost paralyzed, and at times her utterance was thick and broken. These frequent and terrible paroxysms had left imprinted on her pale face an expression of constant care and suffering. Her own estimate of the value of life was that death was preferable to an existence of such constant agony. Her physician had tried almost everything in the materia medica supposed to

be beneficial in such cases; and so without delay, doubting yet hoping, we commenced treatment by faradaization. The patient came every other day, and for the first two or three times only a comparatively mild current was given.

The strength was gradually increased, but no improvement was manifest. After the seventh or eighth application, however, a current, as strong as the operator and patient could well bear, was given for fifteen or twenty minutes, at each sitting, and in addition to the external application, the tongue was thoroughly electrified by means of a metallic spatula. From this time a rapid improvement was noticed.

The paroxysms occurred less frequently and with less severity. She discontinued treatment on the 20th of October, having had no return of pain for three weeks. Up to this date, January 2, she has had, so far as we can learn, no return of her trouble. Whether in this particular case the cure is *absolutely* permanent it is of course impossible to say; but enough is known to convince the patient and those who knew her that the benefit derived was great and incalculable.

Tic Douloureux, as it is well known by any who may have had much experience in the application of electricity for the disease, is the most difficult to cure or benefit of all neuralgic affections.

Of the neuralgias, the cervico-occipital, intercostal, lumbo-abdominial, and cephalalgia, are all in the vast majority of cases speedily cured; and although some cases of facial neuralgias, which have resisted all treatment by medication, still fail to be benefited by electricity, yet it is our experience that the great majority, even of such cases, are permanently cured by persistent treatment.

Case Third.—The power of electricity over neuralgia of a specific character, was very well illustrated in the case of a Mrs. B., sent to us by Dr. Cummings.

When she first consulted us she represented that for years she had been suffering from a terrible neuralgia in the head, and which at times attacked other parts of the body. For six weeks the pain had been so severe that she had been unable to pursue her usual avocation, which was that of an operator on a sewing machine. She was a plump, fleshy individual, with full round cheeks, indicative of anything but delicate health. Indeed, so vigorous did she seem, that we told her that only local applications would be necessary in her case, and accordingly directed her to place her hands on the sheet of copper to which the negative pole was attached, while a very gentle current was

passed over the front and back part of the head. The application had not been continued more than two or three minutes, when she exclaimed, "Doctor! my pain is all gone; this is the first quiet moment I have had for a long time."

The sitting lasted about ten minutes, and at its close she was directed to come again on the following day. The next morning she informed us that she had experienced no more pain in her head, but that "the disease had gone to her breast and shoulders." This fact, taken in connection with some other statements that she had incidently made the day before, led us to suspect that syphilis was the cause of her sufferings. In reply to questions she confessed to every symptom of secondary syphilis, and, in fact, had been aware all along that the disease was in her system. According to our habit in such cases, we made the applications down the spine and over the vital organs. The relief was complete, although not as instantaneous as the day previous. Several times the applications were renewed at intervals of two or three days, and each time she expressed herself as very enthusiastic over the improvement she was making. We examined her throat with the laryngoscope, and found a slight degree of inflammation, which readily yielded to the nitrate of silver. The fifth time she came she reported that she had returned to her work, and was able to labor nearly as hard as at any time in her life. The horrible nocturnal pains had entirely disappeared, and her sleep, which before had been so much interrupted, was quiet and refreshing. There remained, however, some neuralgic distresses in the eyes, which disappeared after a few more local applications.—*Medical Record, N. Y.*

Correspondence.

VAN BUREN, ARK., *Feb. 12, 1867.*

PROF. DAVIS—*My Dear Sir:*

After the reïteration of expressions of obligation to you personally, and my profound regard for your eminent services to the profession and to the public, permit me to relate to you my observations in the use of *chloride of sodium* in the ulcerative stages of typhoid fever.

During the summer and early autumn of 1861, this commu-

nity was visited with one of those epidemics of remittent and typhoid fevers, or rather with that pernicious form of bilious remittent fever, which speedily runs into a typhoid form, with extensive ulceration of the glands of the bowels. My first case was that of a young gentleman, a merchant of this city, Mr. M. Hinkle, aged 22, attacked Aug. 1st, with the ordinary chill, followed by continued fever and immense discharges per anum, a few days thereafter, of blood and pus. I tried the routine treatment all to no purpose, so far as controlling the latter symptom, when it occurred to me to try COMMON SALT. Taking a saturated solution of the article, I gave two teaspoonfuls every 20 minutes, and continued about 3 hours, with a most decided and remarkable result. At the time of commencing its use, which was on the ninth day after the attack, and the sixth day after the supervention of the ulceration, my patient was exceedingly low, and the ulceration, judging from the quantity of blood and pus, was extensive. I continued the use of the remedy for fifteen days before I could finally dispense with it, and, to make assurance doubly sure, I omitted its use for several times, when the discharges would invariably return. I concluded that the common salt had saved my patient's life, and at this time I entertain not the slightest doubt about it.

So well pleased was I with the result that I subsequently used it in 17 cases, all with the like decided and beneficial results. There were no unpleasant symptoms—neither nausea, thirst, or anything else, save that it acted like a charm in every instance, and I saved every one of my patients.

Now, I do not know whether any other physician has tried the article in like cases or not, but I would strongly advise them to do so. Shut in as we have been, until recently, we could not tell what was going on outside in the moral world, nor what discoveries have been made in medicine; but I do not recollect ever to have heard of common salt being used in fevers of any kind. I should be happy to know that other physicians have tested it. I often, in the year '61, gave it in advance of the ulceration, and in every case it controlled and prevented it. Indeed, I thought at the time that I had made a

most valuable as well as wonderful discovery, for I used it in so many instances, and proved it, that I have no doubt whatever that it saved life where nothing else would have done it. It must not, of course, be understood that it was the sole remedy used in those cases, for I gave tonics, alteratives, opiates, terebentha, etc., etc.; but nothing would control the ulceration but the salt, and that did it to perfection.

Yours very truly, LUTHER C. WHITE, M.D.

Proceedings of Societies.

ALUMNI ASSOCIATION OF CHICAGO MEDICAL COLLEGE.

The following correspondence explains itself.—[Ed.

S. A. McWilliams, M.D., *Secretary Alumni Association Chicago Medical College.*

My Dear Doctor: Herewith I have the honor of transmitting you the official reports of the preliminary meeting, and of the meeting of organization, of the *Alumni Association of the Chicago Medical College*, together with the Constitution and By-Laws of the *Association* as adopted.

I am, Doctor, Your Obed't Serv't,

FRANK W. REILLY, M.D.

71 Hanover Street, *March 7th, 1867.*

MINUTES OF A MEETING OF GRADUATES OF THE CHICAGO MEDICAL COLLEGE, HELD AT DR. DAVIS' OFFICE, SATURDAY EVENING, MARCH 2d, 1867.

Present—Drs. J. S. Jewell and John M. Woodworth, Faculty Chicago Medical College; Drs. N. W. Webber, John Quirk, Hiram Wanzer, Robert S. Addison, Julien S. Sherman, and Frank W. Reilly.

Dr. Jewell briefly explained the object of the meeting to be the organization of the Alumni of the Chicago Medical College into an association for the encouragement of goodfellowship

and mutual benefit, the cultivation of a closer intimacy and stronger bonds between the common children of one Alma Mater, and, generally, the advancement of our professional interests by a formal union, holding regular meetings, correspondence and the other usual agencies of organized bodies.

On motion of Dr. Reilly, Dr. Jewell was called to preside over the meeting, and, on Dr. Woodworth's motion, Dr. Reilly was requested to act as Secretary.

On taking the chair, Dr. Jewell stated that the views and suggestions of members on the plan of organization, its aim and scope would be in order, and, after a general and informal discussion, Dr. Addison moved a committee be appointed by the Chair to draft a Constitution and By-Laws.

The Chairman appointed Drs. Woodworth, Webber, and Sherman, with instructions to be prepared to report their action at an adjourned meeting.

Dr. Jewell presented a draft of Constitution and By-Laws, which, after a reading, was placed in the hands of the above committee.

Dr. Jewell called Dr. Sherman to the chair.

The Secretary read, by request, the draft of a Constitution and By-Laws prepared by Dr. Woodworth, which draft was also referred to the committee.

On motion of Dr. Woodworth, Dr. Jewell was added to the committee on Constitution and By-Laws.

On motion, the meeting adjourned to meet in the upper lecture-room at the close of the commencement exercises on Tuesday, March 5th.

FRANK W. REILLY, M.D., *Secretary.*

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MINUTES OF THE MEETING OF ORGANIZATION.

CHICAGO MEDICAL COLLEGE,
Tuesday, March 5th, 1867.

Present—Drs. Jewell and Woodworth, of the Faculty; Drs. Sherman, Webber, Merriman, Quirk, McWilliams, Reilly, Sheffield, Martin, Reckard, Robertson, Patton, Park, Parmenter, Didlake, Crocker, Oggel, Palmer, Nichols, Fredigke, Resse-

guie, Buchtel, Twining, Bond, Baker, Hussey, Lane, Eppler, Hutchinson, Bobb.,

Dr. JEWELL called the meeting to order; the Secretary read the minutes of the previous meeting, which were adopted, and the committee on Constitution and By-Laws submitted the following:—

CONSTITUTION AND BY-LAWS OF THE ALUMNI ASSOCIATION OF THE CHICAGO MEDICAL COLLEGE.

CONSTITUTION.

I. This association shall be known as the "Alumni Association of the Chicago Medical College," and include, as members, all ordinary graduates of said college who shall make application for such purpose to the Secretary in writing, and pay the usual fees to the Treasurer.

All persons who have received the *honorary* or *ad eundem* degree shall be known as associate members, and shall be entitled to all the privileges of the association, except the right of voting and holding office.

II. The objects of this association shall be to keep alive and perpetuate that kindly and cordial feeling which binds us together by reason of our common *Alma Mater;* to encourage the interchange of professional experience, and keep alive that ardor among those who are identified with their *Alma Mater* in attempting to elevate the standard of medical education; and likewise to secure to the institution a record of the professional history of its alumni.

To this end, each member will be expected to address a letter to the Secretary on or before the 15th day of February of each year, giving a short history of his professional experience during the preceding year; and stating at length anything of special interest that may have come under his observation.

III. The officers of this association shall be a President and two Vice-Presidents, a Secretary and Treasurer. The officers shall be chosen by ballot, at each regular annual meeting, and shall hold office until their successors are duly elected.

IV. Any member may be expelled for cause, or be removed from office, after due hearing, by a two-thirds vote of the members present, at any regular meeting.

V. Every proposition to alter or amend the constitution shall be submitted in writing; a two-thirds vote of the members present being necessary to the adoption of such measure.

BY-LAWS.

I. The regular annual meeting of this association shall be held on the first Monday in March of each year. Special meetings may be called by the President, or by a Vice-President in the absence of the President.

II. The President shall preside at all the meetings of the association, and call such special meetings as he may deem necessary, or as he may be requested to call by any five members. Ten members shall constitute a quorum.

III. The Vice-President shall perform the duties of the President in case of his absence.

IV. The Secretary shall keep the records of the association; shall keep a correct list of the members, together with the date of their graduation, and Post-Office addresses. He shall also have charge of the correspondence, and shall make a report, at the annual meeting, of all communications received by him. He shall likewise collect and act as custodian of all catalogues, pamphlets, etc., relating to the history of the Chicago Medical College, and preserve copies of such original contributions to medical knowledge as may be contributed by members of the association.

V. The Treasurer shall have charge of the funds, and pay all bills authorized by a written order of the President, or, in case of his absence, by one of the Vice-Presidents; and shall render a written report at each annual meeting.

VI. Every member shall pay into the hands of the Treasurer the sum of one dollar annually.

VII. The order of business at meetings shall be as follows:—

Calling roll of members.
Reading minutes of previous meeting.
Report of committees.
Correspondence.
Deferred business.

New business.

Reading and discussion of papers.

Address.

VIII. The By-Laws may be altered or amended in the same manner as provided for in the Constitution.

The Constitution and By-Laws were unanimously adopted, the committee discharged, and, on motion, the meeting resolved itself into the ALUMNI ASSOCIATION OF THE CHICAGO MEDICAL COLLEGE.

The Chairman appointed a committee, consisting of Drs. Woodworth, Merriman, and Sheffield, to nominate officers, which committee, after a brief conference, presented the following nominations :—

President—J. S. JEWELL, M.D., Professor of Anatomy Chi. Med. College.

1st Vice-President—S. L. FULLER. M.D., Appleton, Wis.

2d Vice-President—D. J. HUSSEY, M.D., Cherry Valley, Ill.

Secretary—S. A. MCWILLIAMS, M.D.; Chicago.

Treasurer—JULIEN S. SHERMAN, M.D., Chicago.

On being duly balloted for the above gentlemen were unanimously elected, and the President, on taking his seat, made a brief address.

On motion, it was ordered that the proceedings of the preliminary meetings, together with the Constitution and By-Laws, be furnished the *Chicago Medical Examiner* for publication; and the Secretary was further instructed to issue a formal invitation, through the *Examiner*, to all graduates of the Chicago Medical College, to become members of the *Alumni Association.*

The President announced that the Constitution and By-Laws would be found at the residence of Dr. Davis, in the evening, awaiting the signatures of members; and the Treasurer announced his readiness to receive the dues of members forthwith.

Adjourned.

FRANK W. REILLY, M.D.,
Sec'y Meeting of Organization.

CHICAGO COLLEGE OF PHARMACY.

A very great interest is just now being manifested among the druggists of the City with reference to this still living, but almost forgotten, institution. The College has recently been the recipient of a costly and extensive collection of chemical specimens, the gift of Messrs. POWERS & WEIGHTMAN, the well-known manufacturing chemists of Philadelphia.

The inspection of these specimens was made the occasion of an informal meeting last Wednesday afternoon. From the remarks made by the President, Mr. E. H. SARGENT, it appears that, besides chairs, cases for specimens, etc., the College is in possession also of quite a variety of specimens of materia medica, to which additions have been promised as soon as the College is in proper condition to receive them. These, with the valuable collection above referred to, constitute an ample basis upon which to build up a cabinet that will be an honor to the name and fame of our City.

It is proposed also, to organize a library, to contain the best works on pharmacy and the collateral sciences. It is not considered best to attempt a course of lectures at present, or until the College has become strong enough to make them successful beyond a doubt. The surplus funds will be used in procuring books, specimens, etc. At the conclusion of the President's remarks, Messrs BUCK, SWEET, and EHRMAN were appointed a committee to nominate officers. The following were reported and elected:—

President—Mr. E. H. SARGENT.

Vice-Presidents—Messrs GEORGE BUCK and W. H. MULLER.

Secretary—Mr. JAMES W. MILL.

Treasurer—Mr. J. P. SHARP.

Trustees—ALBERT E. EBERT, HENRY SWEET, JOHN W. EHRMAN, WILLIAM REINBOLD, and EMIL DREIER.

Messrs WHITFIELD, EHRMAN, and BLOCKI were then appointed a special committee to secure permanent rooms for the meetings of the College. At this stage of the proceedings, a member of the profession from Leavenworth, Kansas, was in-

troduced to the meeting by Mr. EBERT, and, on motion, unanimously elected an associate member.

The large attendance, the enthusiastic and hopeful spirit manifested at this meeting, augur well for the future success of the College. The other large cities of the Union—Philadelphia, New York, Boston, Baltimore, Cincinnati, and St. Louis—have their Colleges of Pharmacy. Why not Chicago? Let the druggists of Chicago have regard to their reputation for intelligence and enterprise, and see to it that the impetus thus given to their College does not fail, from any supineness or indifference on their part, to carry it forward to a high position of usefulness and honor. It is to be hoped that not only the druggists of the City, but many, also, throughout the Northwest, will feel sufficient interest to identify themselves with the College, either as active or associate members. Copies of the constitution and by-laws can be had on application to the Secretary, JAMES W. MILL, 119 West Adams Street.

The regular monthly meeting of the Chicago College of Pharmacy was held on the afternoon of March 4th, 1867, in Room No. 20, Rice's Building, the President, E. H. SARGENT, in the chair. A large attendance of members present.

The minutes of the previous evening were read and approved.

The Committee on Renting Rooms reported that they had secured a desirable suite of rooms in Rice's Block, and that the same would be suitably furnished as soon as possible.

On motion, a committee was appointed to prepare a design for certificates of membership to be issued to each member of the College, as provided for in the by-laws.

On motion, standing committees were appointed on the progress of Pharmacy and the revision of Pharmacopœia; and, also, a temporary committee on the solicitation of specimens for the College.

The Secretary was on motion instructed to notify the different organizations throughout the Country of the reörganization of the Chicago College of Pharmacy.

Several contributions to the library were reported by Mr.

A. E. EBERT, and a vote of thanks was tendered to him for his donations.

M. EBERT read a paper on the preparation of Bibromide of Mercury, and on a substitute for Liebig's food for infants, made from wheat bran. The subject was fully discussed by the members present.

The meeting then adjourned to meet on Monday, March 18th, 1867.

J. W. MILL, *Secretary.*

Druggists throughout the North-west are earnestly invited to become members, and to contribute to the cabinet and library of the College.

Book Notices.

On the Action of Medicines in the System. By FREDERICK WILLIAM HEADLAND, M.D., B.A., F.L.S., Fellow of the Royal College of Physicians, etc., etc. Fifth American, from the Fourth London, Edition, revised and enlarged. Philadelphia: LINDSAY & BLAKISTON. 1867.

This new edition of a most valuable work is published in good style, on plain, fair type, and contains 431 pages. The former editions have been so long before the profession, and so extensively read, that their merits are well known. The work is worthy of a place in the library of every practicing physician. For sale by W. B. KEEN & Co., 148 Lake St. Price $3.

Orthopedics: A Systematic Treatise upon the Prevention and Correction of Deformities. By DAVID PRINCE, M.D. Philadelphia: LINDSAY & BLAKISTON. 1866.

In the preceding issue of the EXAMINER, we mentioned the fact that no copy of this work had been sent to us, but inserted in the same number a notice of its merits, furnished by a friend. Since that time, we have received a copy from the publishers, and find it an elegant volume of 240 pages, well illustrated with cuts. It is a good, practical, and reliable work, exactly

such as every practitioner needs. For sale by W. B. KEEN & Co., 148 Lake St. Price $3.00.

Contributions to the Pathology, Diagnosis, and Treatment of Angular Curvature of the Spine. By BENJAMIN LEE, M.D. Philadelphia: J. B. LIPPINCOTT & Co. 1867. pp. 129.

This little volume is neatly printed, but without an index or table of contents. It is made up of four interesting essays or articles, originally published in the *Medical Times*, of New York, and styled as follows:—1st, Initial Gastralgia. 2d, False Views. 3d, Correct Principles. 4th, Ten Type Cases. The author writes in an easy, interesting style; and the work will amply repay a careful perusal. For sale by S. C. GRIGGS & Co., 41 Lake St. Price $1.25.

Watson Abridged: A Synopsis of the Lectures on the Principles and Practice of Physic, delivered at King's College, London. By THOMAS WATSON, M.D., etc. (Abridged from the last English Edition,) with a concise but complete Account of the Properties, Uses, Preparations, Doses, etc., of all the Medicines mentioned in these Lectures, and with other valuable additions. By J. J. MEYLOR, A.M., M.D. Philadelphia: Published by the Author. 1867. pp. 277.

This appears to be a faithful abridgement of Dr. Watson's well-known work on the Practice of Physic. It is printed on small but plain type, and supplied with such marginal headings as to facilitate references to particular topics. The author says, in his preface:—"The principal object that induced the making of this abridgement was, to afford young practitioners, who are often at a loss what to do on their first 'sick call,' and other physicians, whom numerous professional duties prevent from consulting more extended works, a convenient and expeditious means of reference in their daily rounds. Another, but no less important object, was to supply medical students, during the lecture seasons, with a ready means of reading over the various subjects treated of in his daily lecture by the Professor on Practice."

The Science and Practice of Medicine. By WILLIAM AITKEN, M.D., Edin., Prof. of Pathology in the Army Medical School; Corresponding Member of the Royal Imperial Society of Physicians of Vienna; of the Society of Medicine and Natural History of Dresden; and of the Imperial Society of Medicine of Constantinople; Late Pathologist attached to the Military Hospitals of the British Troops at Scutari; and Formerly Demonstrator of Anatomy in the University of Glasgow. In Two Volumes. From the Fourth London Edition, with Additions, by MEREDITH CLYMER, M.D., Late Professor of the Institutes and Practice of Medicine in the University of New York; Formerly Consulting Physician to the Philadelphia Hospital, etc. Philadelphia: LINDSAY & BLAKISTON. 1866. pp. 2069.

On the appearance of the first volume of the American edition of this work, we gave it a brief and commendatory notice. The second volume, comprising no less than 1114 pages, is now received from the American publishers, and completes the work. The two volumes embrace an aggregate of 2069 pages, and present the reader with a very full consideration of the science and practice of medicine as it exists at the present day. The author has not written it for the purpose of supplying a class of students with a text-book as cheaply as possible; nor as a labor-saving machine for indolent practitioners; nor yet because he had any special theories or favorite doctrines of his own to promulgate. The object of the author appears to have been, to present the profession with a full and well-digested summary of practical medicine as represented by the most eminent British writers and practitioners, not by any means, however, disregarding the medical literature of other countries. The notes and additions by the American editor, Dr. M. Clymer, are numerous and valuable. In the second volume, alone, they amount to over three hundred pages, embracing such topics as Gonorrhœal Rheumatism, Delirium of Inanition, Epileptiform Neuralgia, Auscultation, Sphygmograph, Chronic Pyæmia, Syphilitic Disease of the Liver, Addison's Disease, Cerebro-Spinal Meningitis, etc., etc. The American publishers have

executed their task well, and the work is in all respects worthy of a place in the library of every medical practitioner. For sale by W. B. KEEN & Co., 148 Lake St. Price $12.00.

Medical Register of the District of Columbia, for 1867. Embracing Notices of the Medical, Benevolent, and Public Institutions of Washington. By J. M. TONER, M.D. BLANCHARD & MOHUN, Washington, D.C. 1867.

We are indebted to the author for a copy of this neatly executed and useful little volume. It is a duodecimo of 102 pages, and contains an amount and variety of information, which makes it interesting and valuable to all members of the profession, whether they ever intend to visit Washington or not. The author has certainly exhibited a remarkable amount of industry and skill in selecting and compressing into so small a compass so large a quantity of important and curious historical and statistical information. He deserves the thanks of the profession and a liberal patronage.

Editorial.

CONVENTION OF DELEGATES FROM MED. COLLEGES.—As indicating the importance we attach to the movement for such a convention, we copy, in place of new editorial matter, the following report of our remarks, originally furnished to the *Med. and Surg. Reporter*, of Philadelphia:—

During the past year the subject of Medical College Organization and Instruction has been discussed with more freedom than usual in some of the leading medical journals of our country, as well as at the last annual meeting of the "American Medical Association." It will be remembered by our readers that, at the meeting just named, a proposition was made to endorse the action of a convention previously held in Cincinnati, composed of delegates from several medical colleges in the West and North-west, which had recommended a more

uniform rate of lecture fees, and the extension of the annual lecture term to six months. The discussion that followed this proposition was participated in by Drs. D. H. Storer, of Boston; M. B. Wright, of Cincinnati; Worthington Hooker, of New Haven; N. S. Davis, of Chicago; and others.

It was claimed by the last named gentleman that the evils connected with our present system of medical education could not be remedied by simply lengthening the annual lecture terms and adopting any given rate of lecture fees.

However proper these measures might be, their influence would not reach the real source of most of the evils of which the Profession complain—namely, the graduation and admission into the ranks of the Profession of young men whose general education, mental discipline, and medical attainments are all extremely defective. These result, not from the rate of lecture fees, or the length of the lecture terms in our medical schools, but from the three following sources: First, the entire absence of all provision for securing any standard of preliminary education before entering upon the study of medicine. Second, the equally entire absence of all provision for securing a proper method and order of progress in the study of medicine itself. And third, the shortness of the lecture terms, and the insufficient means for clinical instruction in many of the schools. He represented the two first as *radical faults*, entering into the very foundation of our present system of medical college instruction, and vitiating all its practical results. They were violations of the most important principles, universally recognized in all other departments of education, in this and in all other civilized countries.

If a young man applies for admission to any literary college, or even high school, he is straightway subjected to an examination, sufficient to test his knowledge of the elementary branches of learning. And why? Simply because it is assumed, on the plainest principles of common sense, that a knowledge of the elementary branches is essential to a proper understanding of the higher and more intricate. It is assumed that a knowledge of arithmetic, grammer, geography, etc., must prepare the

way for the higher mathematics, philosophy, history, rhetoric, etc.; and that a certain degree of mental discipline and habits of study are necessary to enable the student to make adequate advancement in his collegiate course.

In our present system of medical education all this is ignored, and whoever presents himself with the required fee is admitted to our medical colleges, without an inquiry as to whether his mind has been disciplined by an hour of previous study, or whether he is capable of constructing two sentences grammatically, or not.

The absence of any provision for securing a proper method and progressive order of study after entering the medical colleges, developes evils equally palpable and mischievous. It bewilders the student by crowding daily upon his mind too great a variety of subjects, and by presenting them in a perfectly heterogeneous order; while it strongly encourages superficiality of attainments, and constant efforts to comprehend the practical departments to the neglect of the more elementary. If the faculty of any of our literary colleges should throw their freshmen, sophomore, junior, and senior classes all into one grand class, and undertake to drill them one hour on some study belonging to the freshmen year, the next hour on one belonging to the senior year, the third hour on one belonging to the sophomore year, and so on, all the world would regard them as better fitted for a lunatic asylum than for teachers of youth. And yet, this would be exactly parallel to what is done, with one exception, in all the medical colleges in our country. The student just commencing his professional study, and not yet familiar with the naked bones of the skeleton, is placed side by side with the one who has studied two, three, or four years, and both listening during each day to lectures on histology, the elements of chemistry, physiology, and materia medica, interspersed with those on the details of practical medicine, surgery, and obstetrics.

The attempt to include an adequate course of instruction in the various branches of medical science, in five or six lectures per day, for sixteen or eighteen weeks, is not much less objec-

tionable than the heterogeneous order in which the instruction is given.

He stated that nothing short of a full and careful revision of the whole system of Medical College education, could remove the foregoing defects. Such revision should be founded upon the following fundamental propositions:—

1st. A fair degree of general education and mental discipline is necessary to enable any young man to study medicine understandingly.

2d. A knowledge of the elementary branches of medicine, such as Anatomy, Physiology, etc., is essential as a preparatory step to the profitable study of Practical Medicine, Surgery, etc. Hence, a successive order of study is as necessary in the study of medicine as in general science.

3rd. The number of Professorships, and the length of the annual term in each college, should be such as to ensure a complete discussion or review of all the legitimate branches of medical science.

To place the system of medical college instruction in our country upon these self-evident propositions would require the universal adoption and enforcement of a reasonable standard of preliminary education for the medical student; the division of the whole subject of medical science into about twelve branches, *four* of which should be assigned in proper order to each of the three years required for medical study; the requirement of three courses of lectures instead of two, with a thorough examination of the student, at the close of each course, on those branches belonging to each year successively, and an increase of professorships in each college, corresponding with the whole number of branches to be taught, with an annual lecture term of not less than five full calendar months. To perfect and carry into practical operation a revision of our system of medical education, so important to the honor and usefulness of the profession, requires a free interchange of views and an honest concert of action among those connected with the medical colleges throughout the whole country. It cannot be accomplished by resolving here in this association that the college fees ought to be uni-

form, or that the annual lecture terms ought to be five, six, or seven months.

The speaker reminded the members of the association that almost every volume of their transactions, for the last sixteen years, contained resolutions of the same import as those now under discussion. If anything of practical value was accomplished it would have to be done by the college faculties themselves. He, therefore, moved, as a substitute for the resolutions under discussion, the following resolution:

"*Resolved*, That this Association earnestly requests the Medical Colleges of the country, to hold a convention for the purpose of thoroughly revising the present system of Medical College instruction, and that a committee be appointed to aid in carrying this resolution into effect."

Public Commencement of Chicago Medical College.—The commencement exercises of this institution were held on the 4th and 5th of March. The afternoon of the first day was occupied by reading Theses by some of the candidates for graduation, and the public examination of all the candidates in class. At 3 o'clock P. M., of the second day, the college hall was well filled with an appreciative audience. The exercises were opened with prayer by the Rev. Dr. R. M. Hatfield, of Chicago. The President of the Faculty, Prof. N. S. Davis, after stating briefly the peculiarities in the organization of the college, and the important educational advantages they were designed to afford, had the Secretary call the list of junior students who had undergone examinations in those branches of medical science embraced in the junior course, and delivered to each of them a certificate indicating their progress, accompanied by a few words of earnest exhortation, continued diligence and fidelity in the further prosecution of their professional studies.

The Secretary then called the list of candidates for graduation as follows:

E. F. Baker, John W. Barlow, Thomas S. Bond, Charles E. Crocker, John T. Curtiss, M. T. Didlake, Peter Epler, John G.

Fredighe, David J. Hussey, J. W. Hutchinson, Isaac R. Lane, Elmer T. Lawrence, Wm. Martin, Theron Nichols, Henry P. Oggel, Thomas D. Palmer, Wesley Park, J. A. Parmenter, D. Patton, F. A. Richards, Chester Reeder, R. R. Resseque, David Robertston, W. L. Secumb, D. A. Sheffield, E. T. Twining, M. L. Whitman, John Whelan, and the President conferred upon each the degree of Doctor of Medicine, accompanied by an impressive charge in relation to the privileges conferred upon them, and the duties and responsibilities they had assumed.

It was then announced that the Honorary Degree of Doctor of Medicine had been conferred upon Drs. D. W. Beebee, of Elizabeth, Ill.; Asher Goslin, of Olney, Ill.; Wm. Law, of Shullsburg, Wis.; N. Holton, of Buda, Ill., and Joseph P. Johnston, of Lynnville, Ill.

It was also announced that the Committee of the Faculty, to whom had been referred the Inaugural Theses, had awarded the premium for the best Thesis to John G. Fredighe, of Chicago, and for the second best to Theron Nichols, of Wisconsin.

R. S. Patterson, M.D., Professor of Medical Jurisprudence, was then introduced to the audience, and delivered an appropriate and highly interesting valedictory address.

Notice was given that the Summer Reading and Clinical Term in the College would commence on the second Monday in March and continue until the first Monday in July.

The exercises were closed with a benediction by Rev. Dr. Hatfield.

In the evening the graduates, students, and alumni of the College, the Faculty, and members of the Chicago Medical Society, enjoyed a very pleasant social entertainment at the residence of the President of the College.

Alumni Association.—Under the head of Proceedings of Medical Societies, in this number of the Examiner, will be found an account of the formation of the "Alumni Association of Chicago Medical College," with its Constitution and By-Laws. We invite to this the special attention of all the graduates of the college since its organization in 1859, and

hope all who are now living will promptly respond to the invitation to become members of the Association.

Such an organization not merely tends to perpetuate friendship, social intercourse, and unity of feeling among the alumni of a common Alma Mater, but it is equally efficient in keeping alive a generous emulation in the pursuit of knowledge, in the attainment of professional eminence, and the maintenance of professional honor. And we can assure the alumni who may unite with the Association, that their Alma Mater will open wide its doors to welcome them at each returning anniversary meeting.

AMERICAN MEDICAL ASSOCIATION.

OFFICE OF PERMANENT-SECRETARY,
WM. B. ATKINSON, M.D.,
215 Spruce St., Philada.

The Eighteenth Annual Meeting of the American Medical Association will be held in Cincinnati, on Tuesday, May 7th, 1867, at 11 o'clock A.M.

The following Committees are expected to report:—

On Quarantine, Dr. Wilson Jewell, Pa., Chairman.

On Ligature of Subclavian Artery, Dr. Williard Parker, N.Y., Chairman.

On Progress of Medical Science, Dr. Jerome C. Smith, N.Y., Chairman.

On the Comparative Value of Life in City and Country, Dr. Edward Jarvis, Mass., Chairman.

On Drainage and Sewerage of Cities, &c., Dr. Wilson Jewell, Pa., Chairman.

On the Use of Plaster of Paris in Surgery, Dr. Jas. L. Little, N.Y., Chairman.

On Prize Essays, Dr. F. Donaldson, Md., Chairman.

On Medical Education, Dr. S. D. Gross, Pa., Chairman.

On Medical Literature, Dr. A. C. Post, N.Y., Chairman.

On Instruction in Medical Colleges, Dr. Nathan S. Davis, Ill., Chairman.

On Rank of Medical Men in the Army, Dr. D. H. Storer, Mass., Chairman.

On Rank of Medical Men in the Navy, Dr. W. M. Wood, U.S.N., Chairman.

On Insanity, Dr. Isaac Ray, R.I., Chairman.

On American Medical Necrology, Dr. C. C. Cox, Md., Chairman.

On the Causes of Epidemics, Dr. Thomas Antisell, D.C., Chairman.

On Compulsory Vaccination, Dr. A. N. Bell, N.Y., Chairman.

On Leakage of Gas-Pipes, Dr. J. C. Draper, N.Y., Chairman.

On Alcohol and its Relations to Man, Dr. J. R. W. Dunbar, Md., Chairman.

On the Various Surgical Operations for the Relief of Defective Vision, Dr. M. A. Pallen, Mo., Chairman.

On Local Anæsthesia, Dr. E. Krackowitzer, N.Y., Chairman.

On the Influence upon Vision of the Abnormal Conditions of the Muscular Apparatus of the Eye, Dr. H. D. Noyes, N.Y., Chairman.

On the Comparative Merits of the Different Operations for the Extraction of Vesical Calculi, Dr. B. J. Raphael, N.Y., Chairman.

On the Therapeutics of Inhalation, Dr. J. Solis Cohen, Pa., Chairman.

On the Deleterious Articles used in Dentistry, Dr. Augustus Mason, Mass., Chairman.

On Medical Ethics, Dr. Worthington Hooker, Con., Chairman.

On the Climatology and Epidemics of Maine, Dr. J. C. Weston.
of New Hampshire, Dr. P. A. Stockpole.
Vermont, Dr. Henry Janes.
Massachusetts, Dr. Alfred C. Garratt.
Rhode Island, Dr. C. W. Parsons.
Connecticut, Dr. B. H. Catlin.
New York, Dr. E. M. Chapman.
New Jersey, Dr. Ezra M. Hunt.
Pennsylvania, Dr. D. F. Condie.
Delaware, Dr. — Wood.
Maryland, Dr. O. S. Mahon.
Georgia, Dr. Juriah Harriss.
Missouri, Dr. Geo. Engelman.
Alabama, Dr. R. Miller.
Texas, Dr. Greensville Dowell.
Illinois, Dr. R. C. Hamil.

Indiana, Dr. J. F. Hibberd.
District of Columbia, Dr. T. Antisell.
Iowa, Dr. J. W. H. Baker.
Michigan, Dr. Abm. Sager.
Ohio, Dr. J. W. Russell.

Secretaries of all medical organizations are requested to forward lists of their Delegates as soon as elected, to the Permanent-Secretary,

W. B. ATKINSON.

MORTALITY REPORT FOR THE MONTH OF FEBRUARY.—The following is the mortuary report of Health Officer Bridges, of this City, for the month ending March 1. The total number of deaths reported is 255, which is a reduction of 44 from the number of deaths last month:—

CAUSES OF DEATH.

Accidents,	6	Fever, Congestive,	3
Asthma,	1	Fever, Remittent,	2
Abscess,	2	Fever, Scarlet,	14
Bronchitis,	1	Fever, Typhoid,	10
Cancer,	3	Hydrocephalus,	4
Cold,	1	Inflammation of Bowels,	4
Croup,	8	Inflammation of Brain,	5
Consumption,	42	Inflammation of Lungs,	19
Convulsions,	18	Inflammation of Stomach,	1
Childbed,	5	Inflammation not stated,	1
Congestion of Brain,	7	Killed,	1
Congestion of Lungs,	2	Marasmus,	2
Delirium Tremens,	1	Neuralgia,	1
Decline,	2	Old Age,	6
Diarrhœa,	1	Paralysis,	1
Diphtheria,	6	Pneumonia,	1
Dropsy	9	Phthisis Pulmonalis,	2
Dysentery	1	Rheumatism,	1
Disease of Brain,	1	Stillborn,	22
Disease of Bowels,	2	Small-Pox,	5
Disease of Heart,	4	Teething,	9
Disease of Liver,	2	Whooping-Cough,	1
Disease of Lungs,	2	Worms,	1
Disease of Throat,	1	Gun-shot Wound,	1
Epilepsy,	1	Ulcer,	1
Erysipelas,	2	Unknown,	6
Total,			255

AGES OF THE DECEASED.—Under 5 years, 118; over 5 and under 10 years, 17; over 10 and under 20, 10; over 20 and under 30, 35; over 30 and under 40, 31; over 40 and under 50, 16; over 50 and under 60, 8; over 60 and under 70, 10; over 70 and under 80, 6; over 80 and under 90, 2; unknown, 2. Total, 255.

NATIVITIES.

Chicago,	124	Germany,	30	Scotland,	2
Other States,	39	Ireland,	33	Wales,	1
Canada,	1	Norway,	3	Unknown,	5
England,	12	Nova Scotia,	1		
France,	1	Sweden,	3	Total,	255

DIVISIONS OF THE CITY.

North,..... 67 | South,..... 81 | West,.....106 | Total,..... 255

MONEY RECIPTS FOR EXAMINER, FROM FEB. 21ST TO MAR. 22ND.—Drs. J. H. Judson $3, G. P. Martin 3, Brown H. Kimber 3, J. T. Curtiss 3, R. B. Treat 6, D. F. Morrow 6, H. H. Deming 3, Geo. R. Bibb 3, Geo. H. Scott 3, R. S. Addison 6, L. C. White 3, Wm. H. Sommers 3, M. Lindly 6, B. F. Brown 3, J. S. Sherman 3, Asahel Clark 3, S. L. Fuller 6, Jesse H. Foster 17, W. W. Duncan 4, James M. Hutchinson 3, A. A. Dunn 3.25, J. M. Larrabee 3, J. H. Reynolds 3, L. D. Tompkins 10, David B. Trimble 3, Jas. Hayton 3, R. J. Patterson 3, Andrew J. Miller 3, J. W. Lawrence 3, E. M. Blackburn 3.

CHICAGO MEDICAL COLLEGE.

The regular Annual Lecture Term in this Institution will commence on the first Monday in October, and continue until the first Tuesday in March following. Clinical Lectures *daily* throughout the term.

FACULTY.

N. S. DAVIS, M.D., Professor of Principles and Practice of Medicine, and of Clinical Medicine.

W. H. BYFORD, M.D., Professor of Obstetrics and Diseases of Women and Children.

EDMUND ANDREWS, M.D., Professor of Principles and Practice of Surgery, and of Military Surgery.

F. MAHLA, Ph. D., Professor of Organic Chemistry and Toxicology.

H A. JOHNSON, M.D., Emeritus Professor of Gen. Pathology and Public Hygiene.

J. S. JEWELL, M.D., Professor of Descriptive Anatomy.

J. H. HOLLISTER, M.D., Prof. of Gen. Pathology and Public Hygiene.

RALPH N. ISHAM, M.D., Professor of Surgical Anatomy and Operations of Surgery.

M. O. HEYDOCK, M.D., Professor of Materia Medica and Therapeutics.

F. MAHLA, Ph. D., Professor of Inorganic Chemistry.

R. J. PATTERSON, M.D., Professor of Medical Jurisprudence.

DANIEL NELSON, M.D., Lecturer on Physiology and Histology.

J. M. WOODWORTH, M.D., Demonstrator of Anatomy.

For the Winter Term, admitting to all the Lectures in the College,	$50.00
Graduation Fee,	20.00
Matriculation Fee,	5.00
Dissecting Ticket,	5.00
Hospital Ticket,	6.00

The Summer Reading and Clinical Term commences on the second Tuesday in March, and continues until the first Tuesday in July; and is free to all matriculated Students of the College. Boarding, $3.50 to $4.50 per week. For further information, address

E. ANDREWS, *Sec'y of the Faculty.*

THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M.D., EDITOR.

VOL. VIII. MAY, 1867. NO. 5.

Original Contributions.

ARTICLE XX.

THE ACTION OF ALCOHOL UPON THE HUMAN SYSTEM.

BY R. L. WALSTON, M.D., Paris, Ill.

Read before the Esculapian Society.

A few weeks ago, I observed that the National Medical Association made the announcement that, for three successive years, committees had been appointed to make a report upon the action of alcohol upon the human system, but that no report had ever been offered—that each appointment had proved a failure. In all our medical literature, there is a complete dearth upon the subject; there is but one monograph in our language that has even a *bearing* upon this topic. It is for these reasons that I now bring my feeble offering and lay it as a willing sacrifice upon the altar of our profession; not that I entertained for a moment the vain aspiration that I should be able to supply the desideratum, but that I might incite others to do so. It is a subject surrounded by difficulties of which I at first had no conception, and to have prepared a labored, elaborate address upon this subject would have required much thought, great research, and some sparklings of genius. Time for thought I have not had, research I have never made, and to genius I lay no claims. But should I succeed in throwing a

single ray of light across your path, or inspiring a single emotion within your bosoms, to impel you forward in the investigation of this subject, my object is gained.

By alcohol, is meant the intoxicating principle of all spirituous or fermented liquors. It is an unnatural product, not found free in nature, but is always prepared at the cost of the destruction or decomposition of other substances. It has had an existence almost ever since the world was. We are informed in the *Book* that, away down in the dim twilight of the world's history, one Noah was *drunken* with *wine*, and, true to the instincts of such condition, he steeped his ingrate soul in that most unnatural crime. You may sweep back through channels of history into the dark aisles of tradition until superstition and ignorance become an impenetrable veil, illumined only by a few flashings from the Jewish theocracy or gleams from the Trojan fable, and you will find that this mysterious spirit has ever dwelt among the destinies of mankind, at one time sitting, like the hellish imps of discord, gibbering upon the hearthstone, and at another, like the angel of mercy, at the bed of the dying. From its multiple phases, moralists have been wont to represent it as Proteus, or the Old Man of the Sea; but if such figure be admissible, it is dependent upon the shape he assumes, whether he is the Goddess Hygea or the Juggernaut of destruction.

The history of nations gives evidence in behalf of these statements. Greece rolled the car of ambition to the very acme of anticipated greatness and glory, and beheld, with complacent smile, her mighty achievements and unequaled strength; but when she pressed to her lips the intoxicating goblet, her brain ran wild, and she, like an avalanche loosed from some Alpine peak, plunged into the yawning chasm below. Her glory has departed, and, from her mournful ruins, from her desolated rubbish, there comes forth a voice so potent as not to be mistaken. Alexander, the world conqueror, surrendered to the wine-cup, and died as the fool dieth; his generals divided the known world between them and deluged it with blood. War is the great work, or rather the sport and triumph of death—the terrible generalissimo of evil, and his aide-de-camp is wine. But

never, in the world's history, did intemperance reach its climax of sin and violence, of shameless crime and misery, never did it spread over the earth so like an epidemic, until our new, fair, fresh continent yielded the product of its rustling cornfields to the distillery. The vigorous and virgin soil yielded profuse harvests of grain, and the enterprising Yankee manufactured that bounty, which heaven had given for food for man and beast, into alcohol. And thus we had a surfeit of this precious remedy, and hence its shameful and unfortunate abuses. We may imagine the wealthy old Dutchman, sitting under his ample porch, from which the sun's rays were all excluded by his teeming fruit trees, gazing out over his luxuriant fields of wheat, of rye, of corn, and of clover; his cattle slumber in his rich pastures, and his sheep whiten the hillsides. He soliloquizes:—"Oh, that I could find a market for my rural wealth! My barns are already filled, what shall become of my abundant stores?" His satanic majesty is always accommodating to the rich, and he inspires a foreign schoolmaster to come to his aid; and thus the devil and the Scotchman made the wine-presses to run and gush like rills and fountains with this poisonous beverage, which heaven had appointed as a blessed remedy to quicken the sluggish pulse, sustain the failing nerves, and unwrinkle the gathering brow of care.

It is a well known but mysterious fact, that certain agents, when taken into the system, have, first, an elective, local action —that they manifest an affinity, a special preference in favor of some organ or parts of an organ; for example, subnitrate bismuth acts directly and locally on the extremities of the sentient nerves of the stomach, veratrum on the heart, and belladonna manifests its preference in favor of the pupil of the eye, and alcohol is plainly shown to have an elective affinity in favor of the brain and nervous system. Why and wherefore this mysterious action, none may know. It is as mysterious as language, and all attempts to explain it is like the teachings of calculus, that zero above zero is the origin of quantity; it but makes darkness visible, and belongs, properly, to the ken of a future state.

The physical change wrought in a simple piece of animal tissue by the direct action of alcohol is that of corrugation, which change is due to the difference in the affinity which the tissues have for alcohol and water. The change takes place by endosmosis and exosmosis, the water passing out and the alcohol passing in in about two-thirds the quantity of water before contained; hence the corrugation or shrinking. The reason that the tissue absorbs less alcohol than it, in its normal state, contained water, is due to the coagulation of its albumen. This physical change makes an important alteration in the chemical relation of the different elements of the tissues, and since a certain definite proportion must exist between the constituents before nutrition can possibly take place, you see at once how alcohol in the tissues of the animal body must derange all the nutritive functions. The change in the albumen does not take place in the *vitalized* tissues only in the most extraordinary alcoholic potations; but that such changes do take place, in rare instances, none can doubt. No considerable physical change can take place without seriously deranging the vital function of the changed organ or organs. Thus it is, that dogs are killed by the injection of the smallest amount of alcohol into the veins by the clotting of the albumen. Albumen is not, in its own state, organizable, but is changed to fibrine and then to organized tissue, and anything that destroys or prevents the change of albumen to fibrine necessarily intercepts nutrition and cuts off all repair of tissue, and causes starvation and death of *nerve-tissue*, for we shall show, by-and-by, that these phenomena are manifest in the nervous system, as is distinctly seen in the web of a frog's foot, by the microscope, when the frog is intoxicated, by which we learn that alcohol, in a very dilute state, exalts, for a time, vital action, but is soon followed by a corresponding vital depression, from which the system is long in rallying, so that there is much less vital force generated in a given time with than without alcohol.

Some suppose that alcohol, in small and frequent doses, is a tonic; but of this we have no proof. The property of tonic remedies, is to increase the vital contractility of muscular tis-

sues, but especially of the bloodvessels, and in this we have, at all times, a relaxation of the muscular coat of the bloodvessels and a dilated state of the vessel. If a piece of nerve-tissue be subjected to the action of galvanism till it loses its excitability, and then is dropped for a moment into strong alcohol, the alcohol seems to arouse the expiring vital forces, and it is again excitable by the galvanism; but if first acted upon by the alcohol till it refuses, it then falls into a state of hopeless depression, from which no galvanism can ever arouse it. Small earth-worms and puppies are as surely killed by being intoxicated as if the brain was parboiled in an alkali. The membranes of the nervous centres are so tender as to allow the escape of alcohol through them, and the albumen of the brain is thereby coagulated and we have death as a certain result. Alcohol has one peculiar effect upon the blood, which I wish here to mention, as explanatory of something yet to come. When alcohol is taken continuously, it not only coagulates, to some extent, the albumen, as before shown, but it so contracts the red globules as to lessen their capacity for containing the hematine, or coloring matter of the blood, and it is squeezed out into the liquor sanguinis, where it retains the carbonic acid and rejects the oxygen presented to it at the lungs, and hence we have that dusky, dark-blue, cyanotic condition of habitual drunkards.

Intoxication is manifestly, as the etymology of the term designates, a condition of poisoning, and may, for convenience, be divided into three stages. The first is characterized by an increased activity of the heart's action; full, rapid pulse; flushed face and heated surface; with a general exaltation of all the organic functions; but it is most obvious that the encephalic centres are in a state of exalted function, evinced by the loquacity, rapidity and variety of thought, exhilaration and hilarity, and animated countenance and gestures. It is in this state that the old adage, *in vino veritas*, is so clearly manifest in the prevailing inclinations and proclivities being made known. "The irritable and ill-tempered become quarrelsome, the weak and silly are boisterous with laughter and mirth;" they fancy

themselves insulted, take fire within, rave, threaten, and then come to blows. Seneca spoke of them, as those who let in a thief at the mouth to steal away the brains—for the right hand is lifted against the dearest friend, perhaps the wife of his bosom, and in one rash hour performs a deed that haunts him to the grave. This stage is nearly allied to incipient phrenitis, or mania. This exaltation is not a sustained exaltation of nervous forces, but a perversion of them. If the stimulus be now pushed any farther, the second stage is ushered in, where delirium begins and all control over the thoughts is lost, and the man becomes confused and a little muddy, intellectually, (and sometimes physically,) with disordered reasoning powers and the victim of hallucinations, of vertigo, and double visions. Vomiting occurs here, from a poisonous condition of the brain-substance, and this is nature's effort to relieve herself; but *similia similibus curantur* gives him a little more alcohol. The third stage is a total cessation of sensorial power and action, a profound coma, and this may be of every degree, from the sound, deep sleep of nature, from which the patient may be aroused to partial consciousness, to that deep, stertorous breathing; sound, apoplectic coma; tetanic convulsions, and death. When a fatal case occurs, it is plainly one of apoplexy, or a breaking down of cerebral power by effusions; the countenance wears a disgusting, bloated, tumid, livid appearance; the eyes protruding, open, vacant, and staring; and the lips blue and everted; though, in some instances of alcoholic poisoning, it would seem that it was a result of the action of the poison on the nerves of the stomach, particularly those of the sympathetic system, thereby stopping the heart's action, the patient dying of syncope rather than asphyxia. This is a state of *depression*, not *oppression*, as in apoplexy, and, in this condition, he who *bleeds his patient kills him.* Alcohol, as already shown, has an elective affinity in favor of the brain and nervous system, as other articles have a preference in favor of other organs or parts of organs. Its preference is first in favor of the cerebrum, the seat of intellect and reason. This is clearly evinced in the first stages of intoxication—quickened mental action,

rapidity of thought, volubility of speech, and, temporarily, an increased mental power. It selects the cerebrum, as strychnia does the spinal cord; but push it to the second stage, and it reaches, by sympathy, the sensory ganglia upon which the cerebrum is superposed; and in the third stage, the medulla oblongata is involved, as evinced by the stertorous breathing, full, slow pulse, and a general sluggish movement of all the vital organs.

The skin, the kidneys, and the lungs are now taxed to their utmost endurance, to eliminate this poison from the system; but, unfortunately, they succeed but partially, for the reason that the glands, the real scavengers of the system, refuse to take it up, unless it is the kidneys partially, and that is a disputed question; and small quantities of alcohol have been so intimately incorporated into the nerve-tissues as to pass out only by a change of nutrition. But alcohol being a ready combustible, attacks the oxygen from the blood and other tissues, and is thereby changed by combustion into carbonic acid and water, to which combustion the system is mainly due for its increased heat.

I shall now pass to notice, briefly, some of the diseases of the brain and mind, induced by the *abuses* of alcohol, for it is the cause of more such diseases than all other causes combined. The delirium ebriosum of DARUM I shall not notice, it being only an exaggeration of one of the ordinary forms of excitement in common intoxication, and will generally pass away in a day or two, if the wildness and ferocity of the patient be restrained by anodynes and gentleness. But there is a condition intervening upon a continued state of over-excitement of the nervous system, known by us all as delirium tremens, which is so named from the tremulousness and tremor of the muscles, which is always the result of exhaustion—the exhaustion of nervous fever. But delirium tremens may originate in two ways:—It may originate from a continued application of the stimulant till the battery of nervous power is exhausted and ceases to respond to the stimulant; or it may originate from a sudden withdrawal of the stimulant when the supply of nervous

force is so nearly exhausted as to be unable to act without its wonted stimulant, and it is in the latter condition only when you may relieve the patient by goading the brain a little further, by giving him a little more whisky. But the cure is, to put the brain in splints, and keep it at perfect rest, till it can recuperate and generate natural forces enough to run this little piece of divine mechanism. This failure of nervous force is plainly manifest in every case of delirium tremens. There is little or no heat of the head or flushing of the face; the surface is cool and humid, and even chilly and cadaverous; the pulse is small, frequent, and weak; the temper is not violent, but there is anxiety and general apprehension of evil. Most physicians have had patients attempt descriptions of this condition. One, I well remember, which was a vivid picture of a fiendish group of phantastic horrors and chilling agonies, which no pen could describe, even were it guided by the hand of a Dante. If some terrible monster enters your chamber at an unseasonable hour and threatens you, if you hear its footsteps and feel its hot breath, you arm yourself and go into the conflict, and every stroke does you good; but if you approach and strike it, and your good broadsword goes down through it as through a wreath of smoke, or it evades your grasp like a flake of down, or, like Milton's angels in the battle of Heaven, which, though a thousand times cloven, is still uncleft, you recoil from such an unequal conflict and yield yourself to such a deathless conqueror. And such being the nature of this dreadful affection, we have no difficulty in understanding how the habitual use of alcoholic liquors becomes one of the most frequent causes of insanity or settled derangements of the mind. It acts, as the statistics of lunatic asylums all go to show, both as a predisposing and exciting cause, in a greater number of cases than all other causes combined. And this is due more to the production of a disordered state of the nutrition of the brain and nervous system, than in any other way. I might here go on and give the statistics culled from reports of the various asylums in the United States and Great Britain, but time will not permit. But by the law of hereditary tendency, or the trans-

mission of condition, tendencies and appetites, it is remarkably manifest in the offspring of drunkards. Thus Plutarch says:—"one drunkard begets another;" and Aristotle says, that "drunken women bring forth children like unto themselves." Diogenes said to a stripling, somewhat crack-brained and half-witted:—"surely, young man, thy father begot thee when he was drunk." Shakespeare seemed to recognize the law of hereditary transmission of qualities so much insisted upon in the text:—"Come on ye cowards; ye were got in fear, though you were born in Rome." It is a matter of history, worthy our notice, that the child of an habitual drunkard was never known to attain to greatness.

That there is a certain condition of exhaustion of nervous forces, a starved condition of the nutritive power of the brain, which, when transmitted, results in idiocy and imbecility, is settled beyond a doubt, and is accounted for upon principles much better known to science than the law of congenital nevus, or the marks produced upon children in utero, by impressions made upon the mind of the gestating mother. Dr. HOWE, in his report to the legislature of Massachusetts, makes the following characteristic remarks:—"The parents of 300 of the idiots were ascertained, and 145 were reported as known to be drunkards. Such parents give a weak and lax mental constitution to their offspring, who are deficient in vital energy, and predisposed, by their very organization, to cravings for stimulants." This is my argument exactly, that having a low vital energy, a deficiency in real brain force, they have a natural thirst for intoxicating liquors, a longing for something to goad up the brain till it will yield the amount requisite for the daily demand.

If, now, we turn our attention to the inflammatory condition of the brain and its membranes, I presume every physician has a wide and melancholy field of illustration. Inflammation of the brain and its membranes is a usual concomitant of a protracted debauch; or, if the unfortunate recovers short of actual inflammation, he is like to suffer from a protracted state of passive congestion of the brain substance, producing that weight and heaviness of which we so often hear complained. But time

does not permit me to dwell longer, and I must hasten on to touch upon a few prominent points in the diseases of the alimentary canal, produced by the too free and frequent imbibition of alcohol.

The effect of alcohol upon the healthy tissues of the stomach are more plainly manifest in the specimen I here show you, than I could illustrate in a whole evening's lecture. Here is the stomach of a drunkard, otherwise a healthy man. I took it from his body with my own hands. It is true, he suffered with all that train of diseases which accompanies such a life, but it was, emphatically, whisky and obesity of which he died and went to hades. The mucous coat is a perfect mesh of bloodvessels; it is thickened and indurated; the mucous coat is raised up, as it were, to protect the extremities of the gastric nerves from alcohol; there are ulcers and little abscesses filled with a hard granular pus, which has burrowed between the different coats, almost dissecting them from their normal adherence to each other. Such is the havoc made in the stomach by alcohol; and the effect upon the duodenum and other bowels is like unto this. But it is useless for me to continue to enumerate the different diseases of specific organs of the body, it will suffice to say, that it produces amyloid degeneration of the liver, cirrhosis, hydro-peritoneum, fatty liver, epilepsy, muscular tremors, gastritis, pyrosis, various dyspepsias, and the lesions of the kidneys known as "Bright's disease," and last, but not least, alcoholism *favors the production* of nearly all other diseases, by lessening the power of resisting their causes, and contributes to their fatality by impairing the ability to tolerate and overcome them.

Drunkards readily succumb to inflammatory diseases of every variety. Surgeons are always desirous of getting union by first intention, which union they never get in habitual drunkards, on account of the impaired plasticity of the blood. But some are, doubtless, ready to ask the question:—Has alcohol no virtues as a remedial agent? I answer, yes, it is indeed a saver of life unto life; but it is then a benign agent, as a poison, as a medicine, and all medicines are poisons. There are a thou-

sand instances and conditions wherein this powerful arterial stimulant may be used in restoring the injured or wounded from severe shocks, or sustaining the failing life force, or fanning the expiring flame of life into an increased fervency and brilliancy. In chronic diseases, in low fevers, and in extensive superficial burns where, by the direct action of fire, the temperature falls to a degree below the point consistent with vitaltality, a little stimulant may be administered with magic results in sustaining the heart's action and nerve forces till reäction is manifest. But such administration should always be under the direction of an intelligent physician.

There formerly existed some doubts whether the human system could not keep up a sustained effort of its physical and intellectual powers by the aid of alcoholic stimulants longer with than without them, whether or not it did not increase the aggregate of man's endurance. But however many doubts might have lingered in the public mind formerly, it seems that the history of the last five years would have dispelled them all. Our soldiers were not goaded on to victory by any such degrading impulses. They underwent exposures and privations, endured hardships and fatigues, made wearisome marches beneath the burning rays of a tropical sun, exposed to the diseases of a high latitude, all without a murmur. They faced enemies, fought battles, and achieved victories, the like of which the world has never known—they carried bibles, not bottles—a sound conviction of a noble duty was their only stimulant. But does not alcohol increase man's endurance in a continued mental effort? With most persons it produces a temporary exaltation of mental activity, lighting up the scintillations of genius into a more brilliant flame, or assisting the prolongation of a *single* mental effort when the powers would otherwise be exhausted; but it must be remembered that it it is not in any brilliant corruscations or unnatural irradiations of wit or humor in which the merit lies, but it is in the continued fervor of the glow which drops the rays of light into the dark corners of the world's great heart, lighting it up with the lamps of wisdom, and sowing seeds which bring forth the golden

harvest. If spirits would make poets and orators, the world would be full of them. The lights of genius may be untimely burnt out and forever extinguished, as in the case of Mozart, and Haller, and Byron, and Poe. These men gave manifestations of music and poesy in spite of, and not on account of, alcohol. Call Homer from the dead, interrogate that blind old bard of Scio's rocky aisle, as he rolled his quenched eyeballs to find a ray of light, and ask him if that mellifluous epic which he warbled through the listening cities of his native seas, was the fruit of alcoholic potations; and then Milton, a second Homer, but a greater than the first, was it alcohol or celestial lights which shone inward and raised up things invisible to to mortal sight. Do the works of Locke and Bacon bear the impress of a heated brain? Are they volcanic productions? No sir, the Novum Organum and the Essay on the Understanding, give evidence of minds purified by a refiner's fire.

The brain is the organ of the mind, and whatever interrupts the nutritive functions of that organ or changes its sensitive, delicate textures, prevents the mind's ready response to moral ideas and lessens the power and correctness of all intellectual operations. Thought is the true standard of intellectual excellence. 'Tis thought that has said to the wilds of America, blossom, and almost instantly it has become as the garden of Eden. It says to the mountains, be ye opened, and instantly its bowels of rock are blasted out. 'Tis thought that outstrips the wing of lightning, and speaks like the voice of God. It defies volcanoes and storms, and laughs and makes out warrants and executions in its burning path; it tameth the tiger, and maketh a plaything of the lion. 'Tis this, of all things, which most challenges our admiration. We look at the idiot, or even the temporarily insane, and feel that it is a terrible thing to have the reason extinguished, or that some crushing power should rest upon the intellect, paralyzing it. It would be no compensation for us to know that our children would grow up with all the beauty of an Antinous or the giant proportions of an Apollo, did we not expect intelligence to accompany their maturity. Even the club-footed and deformed are loved and

courted, if but this God-like quality is left them—the power to think.

I, for one, believe in an aristocracy, social castes, and an hereditary nobility. But these distinctions should not be erected upon the crumbling basis of wealth. It should be an aristocracy of intellect, a caste of thought, a nobility of mind, and it is plainly the duty of physicians, as champions of moral ideas and devotees of science, to enlighten the people upon the action of every agent which tends to corrupt the fountains of virtue in themselves, or to fetter and trammel the intellect of their offspring. And we have but to cast around us, to see that alcohol, more than all other influences, tends to corrupt and pollute the purest avenues of society, rendering those minds vulgar and plebeian which otherwise would be dignified and noble. "This most excellent canopy, the air, this brave, o'erhanging firmament, this majestic roof fretted with olden fire! What a piece of work is man: how noble in reason; how infinite in faculties—in form and moving, how express and admirable; in action, how like an angel; in apprehension, how like a god; the beauty of the world, the paragon of animals." We delve deep in the mysterious organic structure, but the glittering scalpel throws back the reflection, "there is a God, who made all this." But the correction of moral evils belongs not to science; and leaving the subjects of death—*the grim ferryman*—and man's accountability to God to the man of ethics, I shall offer but a single reflection more.

I desire not to take the *role* of Mentor, nor wear the Nessus' shirt of self-conceit; but I would be understood. What are we to do? We cannot ignore the use of this valuable agent of the text; in such attempt we but fly from Scylla to be wrecked on Charybdis. But guided by the light-house of science, and steering our bark in the middle of the channel of truth, we may use it with caution, at all times exercising a wise discretion as to when and how it shall be administered, if not, we will increase human sufferings, while our mission is to ameliorate them. The physician goes by the ditches and gutters of pollution, but not like the arrogant priest and haughty Levite, who

did not so "much as look that way," or walked on the other side, but like the good Samaritan, he may lift mankind from the trenches of vice as well as the touch of pain and disease. He knows their foibles and failings, and if he is a *physician* and treats the whole man, he addresses his remedies to the failing part, be that attribute or organ. But alcohol has an action directly upon our profession, one of which I have not spoken. There is an aspersion which comes against us from the great heart of the people, which is more loathsome than the sores of Lazarus, or the leprosy of Naaman—one which can neither be hid in "Abraham's bosom," nor purged away in the pool of Siloam—it is this, that the profession, as a profession, is under the ban of intemperance; that the footsteps of the drunkard are wont to be heard in the chambers of woe. Ah! be it said, to our everlasting shame, that the pestiferous breath of alcoholic potations is exhaled around the bed of the dying. Will we not, as a profession, arise and shake this stain from our garments, as the lion shaketh the poisonous vapors from his mane, and hurl back the foul aspersion into the faces of those who make it. Let us be willing to labor for the advancement of the profession—retarded by individuals, it may be, but disgraced it shall never be.

ARTICLE XXI.

REPORT ON INDIGENOUS BOTANY.

BY —— MASSEY, M. D.

Read before the Esculapian Society, October, 1866.

MR. PRESIDENT AND FELLOWS OF THE ESCULAPIAN SOCIETY:

Gentlemen,—As chairman of your committee on Indigenous Botany, I feel it my duty to present a report—a task however which I feel myself utterly incompetent to perform under the most favorable circumstances. And when I remind you of the very elaborate and interesting report of my highly esteemed

friend Dr. Miller on this subject, at the last meeting of this society, I cannot fail to excite your deepest sympathies and commiseration on my behalf.

It will not therefore, be my aim to take a very extensive survey of this field of enquiry, but I shall confine my remarks to but a few species of a single genus of the flora of our beautiful country.

The first to which I shall call your attention is the Asclepias Cornuti.

Asclepias is from the Greek of Esculapius, fabulous god of medicine and physicians. It belongs to the natural order of Asclepiadaceæ, and all of its species as far as I know, to Pentandria Digynia of the artificial system of Linnæus.

The distinguishing characteristics of this genus are that the leaflets are cucullate or hooded, with an averted horn-like process at the base, curved toward the stigma.

Six species I know from observation, to be indigenous to this State and County, namely, A. Cornuti, A. Tuberosa, A. Incarnata, A. Purpurasceus, A. Obtusifolia, and A. Sullivantii. The first three of which are ranked in the secondary list of medicinal substances in the U. S. Dispensatory.

The species under consideration is the A. Syriaca of the U. S. Dispensary, or common silk-weed, a very common, coarse, lactescent perennial plant, growing along lanes and hedges, preferring a rich sandy soil.

The stem is simple, stout, from three to five feet high; leaves oblong-ovate, short-petiolate, mucronate, downy beneath, pedicels shorter than the leaves, densely many-flowered; hoods of crown ovate obtuse, not longer than the uncinate horn; corolla lobes ovate, reflexed; leaves five to eight inches long, by two to three inches wide; veinlets at nearly right angles with mid-vein; peduncles stout, between petioles, bearing a globular umbel of about a hundred greenish purple flowers, few of which prove fruitful; folicles sprinkled with soft warty spines, full of seeds with their long pappus or silk.

It flowers in July and August. The stem and leaves give out a milky juice when wounded; hence one of its names, milk-weed.

This juice has a sub-acrid taste and an acid reaction. Dr. C. List found the chief solid ingredient of the juice to be a peculiar crystaline substance of a resinous character, closely allied to lactucone, and which he proposes to call asclepione.

The juice is coagulated by heat, filtered, then digested with ether, which dissolves the asclepione and yields it by evaporation.

Dr. Shultz found 80 parts of the juice to contain 69 of water, 3.5 of a wax-like fatty matter, 5 of caoutchouc, and 0.5 of gum, 1 of sugar with salts and acetic acid, and 1 of other salts.

It is highly probable that the asclepione of Dr. List is the aggregate of the fatty and gummy matter of the juice soluble in ether, as nine parts out of eleven were shown to be of this character by Schultz.

These analyses throw little or no light on the medicinal properties of the juice, if indeed it is possessed of any.

The root however is the medicinal part, the juice of which is not milky. Dr. Richardson of Mass. found the root to possess anodyne properties. He gave it with advantage to an asthmatic patient, and in a case of typhus fever attended with catarrh. In both instances it appeared to promote expectoration, to relieve pain, cough and dyspnœa.

He gave a drachm of the powdered bark of the root in divided doses during the day, and employed it also in strong infusion.

Dr. Thomas, of Rocky Springs, Miss., stated in a letter to one of the authors of the U. S. Dispensatory, that he had employed the root in Scrofula with great success, and in Dyspepsia with advantage. He found it cathartic and alterative, but observed no anodyne property. He was induced to try it, having noticed that it was much used by the planters in scrofula and other diseases; and by the recommendation of Dr. McLean of Kentucky, who had employed it for twenty years in scrofula with most satisfactory results.

Dr. McLean also speaks very highly of it as an alterative in hepatic affections. He is however of opinion that it might be possible that he was using a different species from that described in the U. S. Dispensatory.

The doubt expressed by Dr. McLean, as to the species used by him might, at first, seem to invalidate his testimony in regard to the virtues of this species of asclepias; but when we remark the different appearance of different specimens, grown in different soils—and at the same time the impossibility of confounding it with any other known species—we are inclined to the opinion that Dr. McLean was confused by the first of the above facts, and that he was using the asclepias cornuti.

Dr. R. S. CANTHORN, of Richmond, Va., used it successfully in several cases of intermittent fever; and it is considered by him a valuable anti-periodic; he gave from four to six grains of the powdered bark, in form of pill, every two or three hours, augmenting the quantity to three times that dose, two or three times before the paroxysm.

I cannot speak as to its virtues as an anti-periodic, never having used it to fulfill such an indication; but as an alterative in scrofula, and as a gentle tonic in dyspepsia, I believe it to be a valuable remedy, and worthy of the attention of the profession.

I think it may reasonably be expected to do good in cachectic diseases, generally attended with torpor of the bowels, which it has a tendency to regulate; this, I believe it effects, in part at least, by giving tone to and stimulating the muscular coat, and in part by exciting a flow of bile, and other secretions, into the alimentary canal.

I have used it in strong decoctions; half ounce of the dried root to one pint of water—to be taken during the course of the day, and continued for a considerable period of time, unless it acts too much upon the bowels, in which case the dose should be reduced.

I next call your attention to asclepias tuberosa; this is the butterfly weed, or pleurisy root; it differs from all other species of asclepias, in not possessing a milky juice.

The stem is ascending, hairy, with spreading branches at the top; leaves alternate, oblong-lanceolate, often sessile, umbels numerous, forming a large terminal corymb; hoods bright orange, oblong, narrow, with slender sub-falcate, sub-erect horns.

It inhabits dry fields and meadows in the Middle, Western, and Southern States.

The root is large, fleshy, tuberous, sending up numerous stems two feet high and very leafy; leaf at top only, quite sessile, acute; obtuse at base, two to four inches long, by half to one inch wide; petals and crown of equal length; follicles brancolate-pointed, containing long, silky down; it flowers in August.

There is a variety, growing mostly in the Southern States, the stem of which is decumbent, which has been raised to the rank of a species, by some botanists, under the name of A. Decumbens; the root is the medicinal part, which was brought into popular use by the Indians, who used it in a variety of diseases.

SHOEFF first brought it to the notice of the profession.

It is ranked, by Prof. DUNGLISON, as a stimulating diaphoretic. He, however, has but little to say about it, and appears to know less; as it certainly neither increases the heat of the surface nor accelerates the pulse.

I think that no one, who has any experience with it, will deny its powerful diaphoretic properties. It appears to act directly on the sudorific porous glandula of the skin; having no direct sedative action on the heart or vascular system; neither does it act by inducing nausea; for, although it is slightly nauseant in the recent state, it acts as certainly and as powerfully when dried.

It acts also as a cathartic, when given largely, especially in the recent state.

Dr. GRIFFITH says that it is a valuable remedy in a variety of diseases, especially of the respiratory organs, and that there is ample testimony of its beneficial effects, if properly administered, in this class of cases.

Dr. CHAPMAN states that it is very certain and permanent in its action, and is well suited to excite diaphoresis in the forming stages of inflammatory diseases.

It has been used with success in acute rheumatism; nor is it empirically prescribed in this painful disease; as our present knowledge of its pathology points plainly to the use of blood

depurants and elimenatives; and when we take into account the fact, that the sudden suppression of the cutaneous transpiration is a most fruitful cause of this disease, we can easily comprehend how active diaphoretics are likely to prove peculiarly useful.

Dr. LOCKWOOD states that when used in strong decoction or infusion, in the proportion of one ounce to a quart of water, (a tea-cup full of which should be taken warm every three or four hours,) it acts with as much certainty as a diaphoretic, as jalap does as a cathartic.

It is also recommended, by Dr. EBERLE PARKER and others, in acute dysentery; and in cases where the skin is hot and dry, I believe it to be highly useful, in virtue of its diaphoretic properties; but I am inclined to the belief that it acts beneficially in this disease, independently of its sudorific properties—by, in some unknown way, modifying the action of the mucous membrane of the alimentary canal, as I believe it also does of the mucous lining of the bronché.

It is popularly esteemed in flatulent colic; hence one of its names, wind root; and I think there can be no doubt that it is gently tonic to the muscular coat of the stomach and bowels.

I prescribed it in one case of typhod fever in which the skin was hot and dry and considerable tympanitic distention of the bowels; the patient could not take oil of turpentine in any way, on account of idiosyncracy: a pint of the decoction, as prepared above, was given *ad libitum* through the course of the day, and I was highly pleased with its effects; its use was followed by relaxation of the skin, a subsidence of the tympanites, and a general amelioration of all the symptoms. Of course other adjuvants were used, but I attributed the subsidence of the tympanites, and the diaphoresis to the asclepias.

I would not be understood, however, to recommend it as a substitute for the oil of turpentine; especially where the alterative effects of the latter medicine on the ulcerated patches of the small intestines is desired; but cases may occur in which the oil cannot be administered, as that just narrated; under such circumstances, I would recommend the use of the remedy under

consideration. Nor do I believe it to be entirely without altertive effects on the mucous membranes, as I have already hinted.

Dr. LOCKWOOD speaks very highly of its use in promoting the eruption in the exanthematous fevers; that it is useful in promoting the eruption in measles, I can testify from observation; it is also useful in this disease on account of the pectoral symptoms that not unfrequently attend it.

Indeed, it is in diseases of the respiratory organs that it has enjoyed the highest reputation, as one of its names would indicate—pleurisy root.

Dr. L. K. WILLIAMS, of Ohio, my former preceptor, was much in the habit of prescribing it in pneumonia, especially the typhoid variety.

It appears to me to be much better adapted to the treatment of typhod pneumonia than ipicacuanha, on account of the depressing effects of the latter remedy; it is especially indicated when the skin is hot and dry.

Sulphate of quinia, opium, or one of the salts of morphia, with the decoction of asclepias tuberosa were the remedies relied on in this form of pneumonia by Dr. Williams, as they are by myself: under this treatment copious diaphoresis is speedily brought about, and should be encouraged until the disease begins to decline; of course I do not speak of other adjuvants and appliances, as I am not writing on pneumonia; but I have been thus particular in describing its use in this disease, as it is the one in which I would especially recommend it.

Dr. LOCKWOOD advises to gather the root about the first of October, cut in transverse slices, dry in the shade, pulverize and bottle; as found in the shops it is reduced to a coarse powder, pressed into cakes and enveloped in paper, each book containing one pound.

Asclepias incarnate is the third and last species of asclepias that enjoys any reputation as a remedial agent.

The stem is tall, and branching above; leaves opposite, lanceolate, on short petioles, slightly tomentous; umbels numerous, erect, mostly terminal, often in opposite pairs; hoods ovate-oblong, with subfalcate ascending horns; found in wet places:

three to four feet high with two hairy lines; leaves from four to seven inches long, by one-half to one and a-half inches wide, rather abrupt at base, tapering to a very acute point on petioles one-half inch long; corolla, purple or flesh-colored; flowers in July and August.

The root is the medicinal part, and is esteemed by some to be analogous in remedial properties to asclepias syriaca. Dr. Griffith considers it a valuable cathartic and emetic; it has not, however, been sufficiently tested to determine its precise medicinal virtues.

Dr. TULLY, of New Haven, who has had an extensive experience with our indiginous remedies, says that it may be administered with advantage in catarrh, asthma, rheumatism, syphilis, and verminous affections.

The dose is from ½ drachm to a drachm of the powdered root: a more eligible form for administration is that of a fluid extract, which may be found in the shops; and is largely consumed by the Eclectic doctors who use it, as I am informed, in a variety of cachectic and glandular diseases in which an alterative impression is desired.

I have had no experience with it myself; and I should not have called your attention to it, but for the fact that it belongs to the genus under consideration, and has had such valuable properties attributed to it by those who have used it.

It grows in abundance in the swampy portions of this State; and any one who may desire to test its virtues may certainly do so by the aid of the botanical analysis above given, and the specimens I present you.

The other species above-named may or may not possess valuable remedial properties; a fact which can only be known by actual and repeated experiment; and, judging from the indisposition of the medical profession to verify the experiments of others, however encouraging they may be, it is not likely that we shall know until, by accident or otherwise, they are forced upon our attention.

My friend, Dr. Miller, in his report called the attention of this society to an anonymous plant, the virtues of which I have

determined to test, upon a suitable opportunity presenting itself.

Believing that others were as favorably impressed as myself, will, I hope, be a sufficient apology for my giving the following botanical analysis:

I refer to verbena bractiosa.

Verbena or vervain (from the Celtic perfœn, to expel stone) belongs to the natural order verbenaceae: the species under consideration belongs to peutandria monogynia, of the artificial system: it is perennial; inhabits dry fields and roadsides of the Middle, Western, or Southern States.

It is decumbent, branched, very hairy, leaves lacinate rugous; spikes terminal, thick, many-flowered; bracts, lance-linear, longer than the flowers, thrice longer than the calyx; whole plant eight to ten inches long; leaves from one to two inches long; flowers small, blue, blooms from May to September.

Several species of verbena have enjoyed considerable popularity, both in this country and Europe.

Its popular name, vervain, shows that it was formerly held in high estimation for the expulsion of stone.

The verbena verticæfolia is esteemed by many as a powerful emmenagogue; the root being the part used in strong decotion.

My friend, Dr. Miller, used the verbena bractiosa with marked success in a case of scrofula with amenorrhœa. I understand him, however, to recommend it especially in scrofulous complaints.

Verbena hastata has also been used in scrofula: it is powerfully bitter, and may possess some tonic or alterative virtues which render it valuable in scrofulous diseases.

Grandview, Ill., Oct. 31st, 1866.

ARTICLE XXII.

MASTITIS AND ITS TREATMENT.

BY ROBERT S. ADDISON, M.D., 269 Milwaukee Avenue, Chicago.

As it has at this day become very *fashionable*—I believe that is the right word to apply—for mothers to wean their children early; if, indeed, they nurse them at their own breasts at all, our attention has been, lately, more frequently directed to the treatment of mastits and mammary abscess than formerly.

Regarding mastitis, in most instances we are not called upon to render relief until the breast has become painfully distended, and we find our treatment (which is directed mainly to the prevention of abscess,) of no avail, in a great many cases.

Having, in my own practice, had this occur so often, after having made use of cathartics and alterants, and relying much upon the liniments and ointments, hitherto so much extolled, without obtaining the desired and anticipated results, I have adopted a different mode of treatment, and one which has given me more gratifying results than those previously employed.

I believe that the effects of liniments and ointments are counteracted by the friction employed in their application, and now never make use of them, but proceed as follows:

If called before resolution has commenced, I begin with a saline cathartic, and direct my patient to avoid the use of fluid, as much as possible, and vegetables entirely, and make use of a diet composed of bread and meat, taken as dry as is endurable.

In many instances, this general treatment alone is sufficient to relieve the mastitis.

If, however, the breast has become painfully distended before I see the case, I supplement the foregoing treatment, by having an ordinary glass breast tube heated by immersing it for awhile in hot water, then, tightly closing the small orifice and cooling the large one until it can be comfortably borne upon the breast apply it over the nipple; then cover the tube with a cloth

wrung out of cold water; and thus obtain easy and regular suction, which—repeated if necessary—entirely relieves the over-distended breast.

Where I find the patient in humble circumstances, I direct the use of a common beer-bottle instead of an ordinary breast tube; but it is not so well borne, owing to the smallness of the orifice and the irregularity of the surface which comes in contact with the tender areola.

March 14th, 1867.

Correspondence.

MOUNT VERNON, Ill., *March 26, 1867.*

Prof. N. S. DAVIS:—

Dear Sir,—The probable return of cholera to this country during the present year makes it necessary that physicians should devote some time and thought to devising a better mode of treatment than has been adopted heretofore. This better mode of treatment must be based upon changed or rather settled views of the pathology of cholera.

Without troubling you with a lengthy exposition of my views, let me tell you in a few words what they are. I have held them for a number of years, communicating them freely to my neighboring physicians, but have had few opportunities of putting them to the test. They are these: The fatality of cholera is due to the dessication of mucous lining of the bronchial tubes and pulmonary vessicles, whereby the proper oxygenation and decarbonization of the blood are prevented. That these conditions actually exist would not be controverted by any one, but the why has not yet been fully ascertained. Dr. Johnson comes more nearly to an explanation, when he attributes it to paralysis of the capillaries of the lungs. Does not the theory of *dessication* more fully account for it? Fluids do not readily permeate dried membranes—in cholera this condition actually exists—that is, the blood of a cholera patent, from

some cause, does not receive the full benefit of due and proper oxygenation. Now, if it were fully ascertained by *post mortem* examinations that the assumed condition of the pulmonary mucus linings does actually exist, would it not be admitted that the hindrance to the process of *osmosis* would be sufficient to account for the phenomena of cholera? Farther, although the investigations of pathologists have not positively shown this condition to exist, (perhaps from their attention not having been directed to it) do not some of the ascertained facts give considerable plausability to this theory? The upper air-passages are always dried, as evidenced by the dry hissing voice and by the actual condition of the nostril and mouth, as seen in life; and may we not assume that the same condition extends to the pulmonary vesicles. Is not this condition of the same parts still further proven, or at least rendered probable, by the fact that, while there is no mechanical hindrance to the free entrance of air into, and its diffusion over, the interior surface of the pulmonary linings, it comes from the lung almost unchanged by expiration, having lost but little oxygen and gained but little carbonic acid gas. See Davy & Bamel. What so readily accounts for this unchanged condition of inspired air, as that the pulmonary linings are dessicated (by the unknown cause of cholera) to such an extent that the function of *osmosis* cannot be fully and properly performed.

Now, theories are of but little avail if they do not point out a mode of treatment. But does not this theory point clearly to a rational mode of treatment? It seems to me that the inhalation of moist vapor, medicated as each practitioner might prefer, would be a necessary and rational mode of treatment. Would not, again, the exclusion of larger doses of opium from our prescriptions follow as a necessary consequence, for, if I am not mistaken, it is an ascertained fact that the pulmonary linings are found in a dried condition in cases of poisoning by that article.

Would not this theory suggest the free use of such remedies at possess the property of oxygenating the blood when introduced therein through the stomach? Concentric friction of the

extremities, as part of "Marshall Hall's Ready Method," would certainly suggest itself to the mind of every thinking physician as an important adjuvant. Would not, again, inhalation of vapor charged with iodine and other agents known to be destructive to vegetable life, immediately suggest itself to those gentlemen who have adopted the "Fungus Theory" of cholera?

These random thoughts I have hurriedly thrown together, and hope that you will give them some thought and consideration, and should you think proper, submit them to your Medical Society at its next meeting; and although they may be productive of no immediate good, they will certainly afford food for thought, and possibly be productive of ultimate good results.

I need offer you no apology for thus intruding these thoughts upon you without a personal acquaintance with you, for your known interest in, and devotion to, science is a sufficient warrant to me for so doing.

Respectfully, etc.,

W. DUFF GREEN, M.D.

HYDROPHOBIA.

SUGGESTION AS TO THE TREATMENT OF HYDROPHOBIA.

I would suggest one grand experiment for the cure of hydrophobia; that is, to trephine and subject the brain to pressure, and thus in a degree suspend the functions of the nervous system. Now when we relieve the excessive nervous irritability, there is reason to hope that nature will be able to eliminate the poison, or else its effects cease before the patient is exhausted. It may be said that this is a dangerous remedy, but a dangerous remedy may be required for a dangerous disease.

AMOS SAWYER.

HILLSBORO, ILL., *March 21st, 1867.*

Proceedings of Societies.

PULASKI COUNTY (IND.) MEDICAL SOCIETY.

Pursuant to a call of the physicians of Pulaski and adjoining counties, the following gentlemen assembled in Winamac, Ind., April 2d, 1867, for the purpose of organizing a Medical Society:—F. B. and A. McD. Thomas, A. M. Pearson, James Tolerton, H. Kittinger, Winamac; J. W. C. Eaton, and N. S. Hazen, Pulaski; C. G. Hartman, Francisville; James H. Smith, Harrison Township; I. B. Washburn and J. B. Moore, (student,) Star City; L. D. Glazebrook, San Pierre, Stark Co; and James Thomas, Royal Centre, Cass Co.

On motion, F. B. Thomas was chosen Chairman, and I. B. Washburn Secretary.

On motion of Dr. Jas. Thomas, a committee of five was appointed to draft a constitution and by-laws. The Chairman appointed Drs. Glazebrook, Hartman, Pearson, Tolerton, and A. Thomas. The committee reported a constitution and by-laws in the usual form, which were adopted.

After the adoption of the constitution, the Society proceeded to elect officers, which resulted as follows:—*President*, F. B. Thomas; *Secretary*, I. B. Washburn; *Treasurer*, A. M. Pearson; *Censors*, L. D. Glazebrook, James Tolerton, and A. McD. Thomas.

The Society adopted a fee bill, equalizing the charges for professional services, and harmonizing with those of neighboring societies.

Dr. Washburn offered the following resolutions, which were unanimously adopted:—

Whereas, From the teaching and practice of a certain class of *self-styled* physicians, the unnatural crime of procuring abortion or miscarriage, for the purpose of gratifying the lust, ambition, or caprice of those who do not wish to bear maternal responsibilities; therefore,

Resolved, First, That members of this Society will in no case countenance the practice, except to save life, and then only

after consultation with a physician of good standing, when such consultation is possible.

Resolved, Secondly, That members of this Society who may be cognizant of the procuring of criminal abortion, apprise the Grand Juries of their respective districts of the facts in the case, looking to a speedy prosecution of the same.

On motion, Dr. L. D. Glazebrook was appointed on essay, and of the proceedings of the Society for publication in the CHICAGO MEDICAL EXAMINER, *Chicago Medical Journal*, and *Cincinnati Lancet & Observer*.

On motion, adjourned, to meet in Winamac, the second Tuesday in June, 1867. F. B. THOMAS, *Pres't.*

I. B. WASHBURN, *Sec'y.*

FOX RIVER VALLEY MEDICAL ASSOCIATION.

The Association met at Turner Junction, DuPage Co., Ill., on the 1st of April, and was called to order by the President, Dr. Winchester.

After the ordinary preliminary business, Drs. Hard, LeBaron, Winchester, and D. W. Young were elected delegates to the State Medical Association; and Drs. Hawley, Hard, Dean, and Hagar were elected delegates to the American Medical Association, with power each to fill vacancies from the members of this Association.

Dr. Hard delivered an address upon the influence of evil habits in the production of disease, with special reference to the use of tobacco. The address elicited a lively discussion, which was participated in by all the members present.

Drs. Hawley, Winchester, and Cushing, each reported an interesting case of injury of the head, one of which proved fatal, one recovered, and one still under treatment.

Dr. Hard reported a case of melanotic tumor, which had been twice removed within three months.

A discussion then followed upon obstetric practice, by Drs. Hawley, LeBaron, and Woodworth.

The Secretary, Dr. Cushing, being about to remove to California, tendered his resignation, and Dr. Hard was elected to

fill the vacancy. The Association passed, unanimously, resolutions of respect for the retiring Secretary.

On motion of Dr. Eddy, the Association adjourned to meet at Turner Junction, on the first Monday of July next.

C. CUSHING, M.D., *Sec'y.*

Selections.

BLOODLETTING THEN AND NOW.

By. C. H. SPILLMAN, M.D., of Harrodsburg, Kentucky.

Fully persuaded that a proper conception of the *modus operandi* of bloodletting as a therapeutic agent, is an important *desideratum* in our profession, I propose to throw together, in as small a compass as may be, the results of inductions drawn from observation and experience, with special reference to this subject, running through a period of 35 years.

Believing, as I sincerely do, that the prevailing doctrines on this subject are unphilosophical, and lead to disastrous practical results, I read, with much pleasure, Dr. Wilson's "Plea for the Lancet," in vol. XV., No. 24, of the "Reporter," as indicating a disposition on the part of the profession, to a more thorough examination of the subject, which, I doubt not, will lead to more rational views.

When I first came upon the arena in 1832, I was not long in becoming convinced that the lancet was used too indiscriminately, and sometimes to an injurious extent. I did not bleed as much as my neighbors, because I met with a number of cases that I could as easily and more safely control without than with it. In many others, however, it was a *sine qua non* to success.

How stands the matter now? Although diseases are the same, climate the same, morbific agencies the same; although organic structure is the same, vital susceptibilities the same, involving the same therapeutical relationships, pointing to the same indications of cure; yet such has been the revolution in the medical mind, that, at the present time, a large proportion of living practitioners rarely employ bloodletting as a remedial agent, and quite a number discard it altogether. Many of our late writers on therapeutics, if they justify its occasional em-

ployment, authorize it in such dubious phrase, with such admonitory qualifications and restrictions, as to clothe it in the garb of suspicion, and deter the junior members of the profession from its employment, even where indispensably called for.

I am not unaware of the fact, that the task before me is an ungracious one. It would have been more consonant to my feelings, could I have endorsed sentiments consecrated by so many justly distinguished advocates. To the popular doctrines on this subject, however, I find myself in a position of inexorable antagonism, by the logic of facts and figures which are impregnable. That more liberal enlightened views are demanded, and will ultimately obtain, I have an abiding conviction; and, whenever medical men shall have divested themselves of the leaven of empiricism, to which that distrust in regard to bloodletting as a remedial agent, which now sways the popular mind, may be legitimately traced, and come to view this subject in the light of rational physiological principles; we shall then have a fuller appreciation of that powerful remedy, which, as Dr. Wilson justly remarks, nature claims as her own, and shall have made an important step, toward the highest attainable perfectibility of our art.

From one opinion, however, advanced by Dr. W., in his excellent paper, I must take the liberty of dissenting. That this prejudice originated with the non-medical public, I think, is exceedingly questionable; and if the doctor will submit the matter to a thoughtful review, he will find the responsibility where least excusable, with those who ought to know better. My observation is, that the popular verdict stands opposed to medical inefficiency in that regard. Disguise it as you may, I apprehend it is accepted as a concession to the various shades of empiricism which flood our land, all of which have been weighed in the balances and found wanting.

There is no therapeutical agent, however valuable and indispensable to a successful exercise of our art, that may not be brought into disrepute by injudicious use; and a misapprehension which underlies the general prejudice which has obtained in regard to the lancet, relates to the principle on which it operates in the subversion of morbid action. Had it not been regarded as a physical agent, operating on mechanical principles, it would never have been confided to the hands of the ignorant, and we should have had fewer failures and miscarriages, which have contributed largely to this prejudice; for it is with this as it is with all other remedial agencies, the more powerful for good, the more prolific of evil, if misapplied.

Employed as a vital agent, regardless of quantity, pushed to a given effect, by a practiced hand, under the guidance of a cultivated intellect, it is not only perfectly safe, but unquestionably the most potent remedial agent known to our art; nor can it be dispensed with, without surrendering to a weak vascillating timidity, compromising the most sacred obligations that can attach to a medical man, and greatly circumscribing the usefulness and efficiency of the medical art.

The argument against the lancet, founded upon its supposed debilitating effects, is an abstraction, and not an induction from a careful observation of facts. On the contrary, every practitioner who has had an extensive experience in its employment, and witnessed its magical effect in the instantaneous subversion of the most violent forms of morbid action, appreciate it as a means of economising strength. In a sudden attack of either a congestive or inflammatory character, although the patient may have a feeling of great prostration, and is unable to put forth his strength, he is not weak. Take off the weight by which he is overborne for the time, and he is still strong.

"The giant," says an able writer, "that lies prostrate on the earth, mastered by superior power, has still a giant's strength, though he do not at that moment put it forth. Give him but the chance to throw off the load that keeps him down, and he will soon show you that he is not weak."

This is a very apt illustration of depressed vital action, misnamed debility, under the weight of disease. The intelligent physician will not be misled by the illusion. He will at once recognize this apparent debility, as the sympathetic influence of a dangerous leison in some vital part. Although greatly diversified in the phenomena they present, according to the peculiarity of the tissues involved, and the manifold remote causes which give rise to them, I apprehend there are few maladies not characterized by inflammation or venous congestion, either of which, by sympathetic influences, may occasion great prostration. They may be sudden in their onset, or insidious and gradual in their approach. They may persist for some time in a simple state of functional disturbance, but ofttimes run rapidly into irremediable structural alteration. In the latter case, relief, if attainable, must be prompt and instantaneous. The practitioner, seeing the peril, and comprehending the situation, will find little room for temporizing. The most powerful means of equalizing the circulation and taking off the oppression, are called into requisition; and a philosophical view of the medium through which, and the manner in which, both morbific

and remedial agents operate upon the vital economy, will at once suggest bloodletting as the most appropriate, because the most prompt and decisive means of accomplishing the object.

Irreconcilable as this may seem with that hypothesis, founded upon the mechanical philosophy, which assumes bloodletting to be a debilitant; it is nevertheless in strict accordance with the known therapeutical effect of that agent corroborated by the observation and experience of every one who has employed it, under an intelligent recognition of the principle on which it operates, in the submersion of morbid action.

The whole gist of the opposition to bloodletting, is predicated in conformity with the hypothesis, that it is necessarily debilitating; and this arises from a misconception of its *modus operandi* as a remedial agent.

Although a low pulse speedily raised, a shrivelled surface filled out, cold extremities warmed up, equilibrium of circulation reinstated, lost strength restored, vital energy renovated, are phenomenas which have been a thousand times observed to follow immediately on the intelligent employment of the lancet; and in multiplied instances such phenomena could have been elicited by no other means; it is nevertheless abandoned, on the ground of its alleged incompatibility with the assumed hypothesis.

Admitting the loss of blood to be intrinsically debilitating in a normal state of the system, and allowing our inability to reconcile this fact with its powerfully restorative effect in many forms of disease, the truth of which cannot be successfully controverted, it is no more seemingly paradoxical than many well-known facts with which the history of medicine abounds; and affords a striking exemplification of the practical value of the principle inculcated in Hoffman's Aphorism—*Ars medica tota observationibus.*

Quinia, in its nature and properties, is no less marked, intrinsically, as an excitant, than is the lancet a debilitant; and I apprehend the objector will find about as much difficulty in accounting, on philosophical principles, for the powerfully sedative influence of the former in controlling fever, as he will in reconciling the restorative influence of the latter, in diseases of depression, with its assumed debilitating effects.

To assume an hypothesis on sufficient data, and then reject every principle not in harmony with it, is unphilosophical.

It is a humiliating fact, that in the present imperfect state of our knowledge, much of our reasoning, inconclusive, and unsatisfactory, rises no higher than mere speculation. However

gratifying the reflection that by a close observance and careful analysis of facts, much is known in regard to the therapeutical effects of many remedial agents, still there are doubtless a great variety of hidden, unobserved influencing circumstances, connected with pathology, and therapeutics, which, if known, would greatly modify our inductions.

From a carefully noted and patiently classified series of facts, running through a long period, during which, in disregard of the popular prejudice, I have employed the lancet, not only to subdue violent inflammation, but to take off the oppression, and restore the strength, in cases of the most profound congestion, I am prepared to bear testimony to its magic power as a therapeutic agent; and hesitate not to say, after a patient, persevering trial of all its reputed substitutes, that many such cases can be reached by no other means known to the profession.

The number of lives sacrificed to this prejudice against the lancet, compared with those who fall a victim to its use, I doubt not, is as a thousand to one.

Look at the fearful increase of chronic diseases since the lancet has been partially ignored, and the profession has become tender-footed on the subject of bloodletting. Or to furnish a still more striking illustration; go to those districts where empiricism in its various forms, having manufactured, now subsists upon this prejudice, and lay it to the line and plummet of rigid vital statistics, and you will find multitudes of invalids who ought to have been restored to soundness by a prompt energetic treatment, whose cure, in consequence of an inefficient, temporizing course, has been incomplete; vestiges of disease still remain; vital leison still lingers, ultimately to develope itself in some chronic form; and the tenure on life simply prolonged a brief period.

It is probable that tubercular disease in its diversified forms, is more destructive to human life than all other maladies combined. The best lights reflected from pathological anatomy, note it as a product of inflammation. A patient investigation of the etiological history of very many of these diseases, rarely fails to reach an inflammation as the point of inception. This fact is suggestive, and its inculcations should not be disregarded. It strikingly illustrates the folly of temporizing in all grave maladies; and affords the highest presumptive evidence against the expectant plan of treatment, which reposes upon the medical powers of nature, while disease, none the less destructive, from its insidious character, is stealthily settling down upon the vitals. The point is this, that tubercular disease in

its multiplied forms and various complications, is, in large measure, the sequel to an inflammatory attack, which might and ought to be relieved by depletory measures so decisive, as to render the cure complete; and its great prevalence and fatality may be attributable to the existing popular prejudice against the only efficient means of subduing it in its incipiency.—*Medical and Surgical Reporter.*

EXTRACT FROM OBSERVATIONS UPON ANÆSTHESIA OF THE CORNEA AND RADIATING FIBRES OF THE IRIS OCCURRING WITHOUT INTRA-OCULAR TENSION.

By JOS. S. HILDRETH, M.D., Opthalmic and Aural Surgeon to Cook County Hospital, Chicago, Ill.

By anæsthesia of the cornea I here refer to that diminution of its sensitiveness to touch which may exist without apparent organic disturbance of the part.

By anæsthesia of the radiating fibres of the iris, to a condition of this membrane which, without mechanical complication or apparent organic change, prevents the pupil from properly responding to the influence of atropia or light.

The degree of anæsthesia may be ascertained by gently touching the cornea obliquely with the point of a small, soft camel's hair pencil, previously wet and stripped quite dry; or the point of a small twisted roll of unsized paper slightly moistened.

This should not be repeated more than once or twice during a minute, lest a degree of toleration be established which would interfere with correct appreciation.

The iris is to be tested by using a given number of drops of atropia in solution of definite strength.* But its dilatability does not always correspond to the state of the cornea, being in some cases greater with the same degree of anæsthesia than in others; yet, the amount of atropia and time required for dilatation are valuable diagnostic guides. The influence of light should also be noted.

These pathological conditions may exist from a slight to a very marked degree, and doubtless are caused by a certain abnormal state of the ciliary apparatus, which may result from

* Four grains to the ounce.

intra-orbital, cranial, or spinal causes; and possibly, in some cases, be idiopathic. It can also be temporary, as it were, spasmodic, or become permanent.

The influence exerted by this affection upon other diseases, especially panniform and ulcerated keratitis, infiltration and sloughing of the cornea in purulent ophthalmia, panus, and some forms of atrophy of the globe, engages particular attention.

When slight, of recent origin, or spasmodic, it may, in some cases, be relieved by medical means only; but, if existing to a high degree, or of long standing, division of the ciliary ring becomes necessary.

The following clinical facts are taken from the records of the United States Eye and Ear Hospital. All were operated upon without ether or chloroform.

Furrow, æt. 29. April 13, 1865. Left eye. Cornea considerably anæsthetized, panniform, and centrally ulcerated; pupil only slightly influenced by atropia. No apparent change of iris, *no tension of globe;* acute pain in and about the orbit.

Division of ciliary ring.*

The corneal anæsthesia was at once relieved, and the pupil became dilated in thirty minutes, though no atropia had been used for more than twenty-four hours. Pain speedily abated.

June 19. From the date of the operation there had been no return of pain; the pupil readily responded to atropia, but was not fully susceptible to light. The reflex movements were more marked from than to this side. No corneal anæsthesia remained; its panniform condition had greatly improved, and ulceration healed. Periphery of retina apparently unimpaired.

General and local medical treatment previous to the operation had failed to afford relief.

Crippen, æt. 20. April 13, 1865. Right eye. Cornea panniform, ulcerated, and considerably anæsthetized. Pupil slightly influenced by atropia. No other affection of iris; *no tension of globe;* severe pain in and about the orbit.

Ciliary ring divided as in preceding case.

Corneal anæsthesia immediately disappeared, and the pupil dilated in ten minutes, though no atropia had been used for twenty-four hours. Pain in orbit at once relieved, and from surrounding parts in a few days.

June 19. The corneal anæsthesia had not returned; the

* The point of operating was in all of these cases between the external and inferior recti, unless repeated, when it was between the inferior and external.

pupil dilated easily, and responded to light. Ulceration had healed, and panniform condition was improving. No return of pain. Periphery of retina unaffected, and reflex movements of irides equal.

Medical treatment had failed to afford relief.

Lamont, æt. 49. April 26, 1865. Left eye. Pain of varying intensity, radiating to corresponding supra-orbital and coronal regions. Cornea anæsthetized, and iris only feebly influenced by atropia. *No tenison of globe.*

General and local medical treatment, with frequent paracentesis of the anterior chamber, had failed to materially improve these conditions.

The ciliary muscle was divided obliquely backward from its corneal attachment, about four and a-half or five millimetres.

Corneal anæsthesia was at once largely diminished, and the pupil dilated in about twenty minutes. Pain in the orbit relieved within a few minutes, and in coronal and supra-orbital regions in forty-eight hours. No atropia had been used within twenty-four hours of the operation.

In the course of ten days, the pupil, having been allowed to contract again, was found beyond the influence of atropia. The corneal anæsthesia was increasing and pain returning.

May 13. The ciliary muscle was again divided from its anterior insertion obliquely backward about six and a-half or seven millimetres.

The immediate effect was, as before, to remove the corneal anæsthesia, and to allow the pupil to dilate in about twenty minutes, from the effects of atropia that had been used forty-eight hours previously, as none had been employed since that time.

October 16. The corneal anæsthesia had not returned, the pupil was perfectly free, and responded to the action of atropia and light. Its contraction by reflex action was not so perfect as that of the opposite side.

Ulceration of the cornea had healed.

Peripheric vision, with dilated pupil, was good.

The imperfect results following the first operation are attributed to imperfect division of the affected parts of the ciliary ring. But it is probable all of its effects would not have been lost, as they were, had the use of atropia properly been kept up.

Hughes, æt. 23. Right cornea anæsthetized, and the pupil slightly affected by atropia.

Medical treatment, with repeated and systematic paracen-

tesis of the anterior chamber, slightly influenced these conditions.

May 11. The pupil contracted; was not affected by atropia, and the cornea was still anæsthetized. No other apparent affection of the iris, and *no tenison of the globe.*

Division of the ciliary ring, with the immediate effect of removing the corneal anæsthesia, and causing the pupil speedily to dilate, though no atropia had been used for twenty-four hours.

June 19. The pupil has been dilatable since the operation, and anæsthesia of the cornea has not returned.

Peripheric vision of this eye apparently good, and reflex movements of irides are equal.

Pemberton, æt. 29. March 18. The cornea of the right eye anæsthetized, and the pupil feebly influenced by atropia; considerable pain in and about the orbit. No intra-ocular tenison.

The ciliary ring was divided, which immediately removed the anæsthesia of the cornea and caused the pupil to speedily dilate.

No atropia had been used for twenty-four hours.

June 17. The corneal anæsthesia has not returned; the pupil dilates readily and responds to light. Periphery of retina unaffected, and reflex movements of irides equal.

The above cases represent the pathological conditions under observation, and show the results of division of the ciliary ring upon them after general and local medical treatment, aided in a number of them by frequent and systematic paracentesis of the cornea, had failed.

In no instance did evacuation of the aqueous humor affect the anæsthetized condition of the cornea or allow the pupil to dilate, though atropia was at the time freely used.

The influence of these conditions upon some forms of keratic disease is also above made apparent.

In the following case partial atrophy of the globe and corneal anæsthesia were both relieved by division of the ciliary ring after iridectomy had failed.

Hamilton, æt. 20. Left eye. Large leucoma, with anterior synechia; remainder of cornea nebulous and anæsthetized. Slight atrophy of the globe. Iridectomy, September 15, 1865.

October 11. Anæsthesia of cornea remains, and atrophy of globe unchanged.

Division of the ciliary muscle caused the corneal anæsthesia to disappear within forty-eight hours.

November 6. Globe is firm, and cornea normally sensitive.

The form of corneal insensibility under observation is usually uncomplicated; but it may co-exist with intra-ocular tenison, as in the following instance:

Johnson, æt. 25. Left eye. Staphyloma of choroid; iris dark and disorganized; pupil contracted and bound by posterior synechia; cornea anæsthetized; intra-ocular tenison well-marked.

October 30. Iridectomy followed in fifteen minutes by division of the ciliary muscle.

After the removal of one-sixth of the iris from its pupillary to the ciliary margin, the cornea remained anæsthetized as before, but was immediately relieved by the second operation.

In two other cases the pupil quite undilatable, yielded upon administering ether to a high grade of relaxation.

Dilatation became quite full in one, was easily maintained by atropia, and permanent relief followed. Only partial in the other; on discontinuing the drug, the pupil contracted and refused to dilate as before.

Several times I have observed this condition of the iris to be carried by reflex action to the opposite side. So that, upon relieving the eye most affected, it gradually disappeared from the other.

In some instances a certain grade of anæsthesia has been modified by well dilating the pupil, which accounts for the favorable influence of this remedy in keratic affections.

Von Graefe remarked, in 1859, that if the pupil readily dilates by atropia, there would be less liability to suppuration after extraction of cataract, or words to that effect.

That condition producing the corneal anæsthesia, specially described in this paper, undoubtedly often has been instrumental in producing unfavorable results in this operation, and it should be removed before flap extraction.

The early diagnosis of that condition represented by corneal anæsthesia and iritic insusceptibility to atropia, is of the greatest importance in purulent ophthalmia, as it is frequently followed by infiltration and consequent sloughing of the cornea or ulceration from the epithelial surface without previous infiltration.

If the narrow and dense band of conjunctiva immediately surrounding the cornea remains intact, infiltration of the subepithelial structures will precede sloughing; but if this conjunctival band early become infiltrated or disorganized, sloughing from the surface soon follows, though the parts beneath may not be infiltrated.

I would operate in all such cases when anæsthesia of the cornea could not be relieved by atropia, and especially when the pupil had become undiltable, and then *maintain the effects of the operation by the use of atropia.*

As stated in a previous paper, this operation should not wholly be relied upon in such cases. Other means must also be used to control inflammatory action, the purulent discharge, and the chemosis. By its proper and timely use, the cornea can be saved when all other known means *combined* would inevitably fail.

The successful treatment of panus by syndectomy and purulent inoculation involves one of the causes of its original production—imperfect nutrition of the deep tissues of the cornea.

From results already recorded, and experiments in progress, it is evident pannus may yet be successfully treated without resort to purulent inoculation.

As this paper is intended only to report certain clinical facts, theoretical deductions, as far as practicable, have been omitted.—*Transactions of the Am. Ophthalmological Society.*

PHYSIOLOGICAL AND THERAPEUTICAL ACTION OF COD-LIVER OIL.

By A. BISSELL, M.D., of New York.

The discussion of the therapeutical applications of cod-liver oil, started by Dr. Joseph Adolphus, of Hastings, Mich., in his able communication in the *Reporter* of December 8th, 1866, has led me to offer the following remarks on the subject for your columns.

M. Bouchardat, Professor of Hygiene at the Academy of Medicine, Paris, says:

"The minute division of the iodine in cod-liver oil, the particular state in which it exists, must singularly facilitate its absorption by the tissues, and can in this way contribute more than the absolute proportion of this substance to the marked effects which this oil exerts on the animal economy.

"Also, iodine in the oil is not eliminated from the system, AS THE OTHER SOLUBLE PREPARATIONS OF IODINE: in this elementary combination its action is slower, more regular, and more persistent, as it is successively set at liberty in the economy, in proportion as cod-liver oil is gradually decomposed in the blood."—[*Manuel de Materie Medicale, page 749.—1856.*]

The action of cod-liver oil on the system is a double one; it is nourishing by its fatty elements, and curative by its medicinal bodies—iodine, bromine, and phosphorus, which it naturally contains; and to these three substances must be attributed its superiority over other fats or oils, either animal or vegetable, in the cure of diseases. These facts, discovered and proven by physiologists in their experiments on animals, and confirmed by the experience of physicians in their daily practice, have been corroborated during the last eight years, in a most illustrative manner, by the administration, to a large number of patients, of cod-liver oil five times richer in iodine, bromine, and phosphorus than any of the cod-liver oils known before.

Cod-liver oil, as well as other fatty substances, when taken in too large quantities, is apt to disturb the stomach and derange the functions of the intestinal canal. Only a small quantity can be digested and assimilated, the rest passing off unchanged, producing more or less frequent and abundant alvine evacuations, in which are contained the superfluous oils or fats. Observations prove that the gastric juice has no action whatever on fats or oils, the pancreatic juice being the only body, which, by its emulsive properties, causes the absorption of these substances into the economy; and, therefore, all the oil not emulsioned by the pancreatic juice is evacuated by the intestines just as it was taken. The knowledge of this important fact is due to the recent observations of CLAUDE BERNARD, a well known authority in physiology. The oil once emulsioned by the action of the pancreatic juice, is brought into the general current of the circulation as follows: it is first taken up by the chyliferous vessels on the surface of the small intestines, and passing through the mesenteric glands and the thoracic duct, it is discharged in the left subclavian vein, where it mingles with the venous blood returning to the right cavities of the heart. This blood, and the fresh nutritious elements, furnished by the two subclavian veins, are pressed into the lungs to be there oxidized and altered; while passing through the pulmonary circulation, the oily molecules are modified and almost all of them destroyed. The blood, then ready anew for nutrition, passes into the left ventricle, to be thence distributed through the arterial system, carrying along with it, some oily globules left undecomposed during their speedy passage through the lungs, said oily globules to be successively altered in the circulating blood.

The medicinal oil, evidently brought undecomposed into the lungs, and partly in the general current of the circulation, is

modified, losing not only its emulsive form, but also its oleaginous characteristics, so as to constitute a part of the arterial blood. Iodine, bromine, and phosphorus, are then set free during the process of nutrition of the tissues, each part of our system appropriating to itself the substance it needs.

The tissues, in contact with the nutritious blood, having a tendency to appropriate to themselves the elements most proper to maintain their healthy condition or to alter it, when unhealthy, is it not judicious to conclude that the lungs first and then the rest of the system, when affected with bronchitis, phthisis, scrofula, under any variety, or rickets, etc., etc., are highly benefited by the healing and restorative action of the oil and its medicinal constituents, minutely, naturally, and persistently brought into contact with the diseased parts?

That oils and fats are successively carried through the economy, and transformed, as above described, is amply demonstrated by the experiments of the most eminent modern physiologists, such as CLAUDE BERNARD, TIEDEMANN and GMELIN, LEURET and LASSAIGNE, SANDRAS, BOUCHARDAT, BLONDLOT, DELAFOND, GRUBY L. CORVISART, J. C. DALTON, jr., A. FLINT, R. DUNGLISON, etc.

We must not forget this important point, that oils or fats go into the blood undecomposed and unchanged, being merely infinitesimally divided by the pancreatic juice; but if an oil contains substances, in a close chemical combination, so that they cannot be easily separated, these substances will of course be carried into the blood with the oil itself. This is just the case with a cod-liver oil which contains a large proportion of IODINE, BROMINE, AND PHOSPHORUS. Iodine and bromine have so strong an affinity for oil, that they cannot be separated from it by chemical reagents, not even by strong sulphuric acid. They must, therefore, be carried with the blood and liberated when the oil is transformed, in the process of nutrition, into its elements, and becomes the chief agent by which the heat of the body is maintained. Knowing, then, that to the nutritive property of the oil is superadded the alterative, and stimulating power of a comparatively large quantity of iodine, bromine, and phosphorus, who can doubt the efficacy, as a medicine, of cod-liver oil, if made richer with these substances?

Phosphorus, a part of our brain and bones, is a powerful diffusible stimulant, exciting the nervous organs, heightening the muscular power and mental activity, and relieving the despondency of mind occasioned by many serious diseases.

Iodine and bromine are superior to all alteratives for improv-

ing and purifying the depraved nature of the blood. They are the best remedies we possess for checking and controlling the swelling and induration of the glandular system, the ulcerative process in scrofulous complaints, the diseases of the lungs, etc. Obviously, the main point, in such serious affections, is to check and control at once the ulcerative process, and to do so it is of the greatest importance to use PROMPT AND ACTIVE MEDICATION.

SUPERIORITY OF IODINIZED COD-LIVER OIL OVER SIMPLE COD-LIVER OIL.

Until of late, natural and pure cod-liver oil has been the best remedy, and the one most generally used, with more or less success, in diseases of the lungs when of a tuberculous character. The period of the malady when the oil was first employed, and also the purity and strength of the remedy accounting for the success or failure.

Pure cod-liver oil is more likely to cure consumption, scrofula, rickets, swelling of the glands, etc., in the first stage of the disease; in the second and third stages it mitigates the severity of the symptoms and prolongs the life of the patient, but seldom saves it.

The reason for this difference of action is simply that the pure oil contains iodine, bromine, and phosphorus only in minute quantities, which although sufficient to cure a disease in the beginning, is not powerful enough when it assumes a graver type.

If we suppose for an instant the discovery of a new natural cod-liver oil, containing more iodine, bromine, and phosphorus than the oil in present use, there is not the least doubt but that every physician would prescribe it in preference, fully confident of its enhanced qualities. The natural consequence of this proposition explains satisfactorily why the medical profession should give the preference to iodinized cod-liver oil, which contains a larger proportion of iodine, bromine, and phosphorus than the oil in present use; these active elements, as before remarked, are in such a peculiar combination that their action is slow, regular, and persistent, being successively set at liberty in the economy in proportion as the oil is decomposed in the process of animal life.

Some physicians are so well convinced that the curative properties of the oil reside in these three substances, that to obtain a full effect they prescribe very large doses of the oil, sometimes giving two, three, and even four tablespoonfuls three or four times a day, the larger quantity amounting to no less

than half a pint daily. That their object is not attained is fully proven by physiologists, who have demonstrated that only the small quantity of oil emulsionized by the pancreatic juice is digested and carried into the blood, the rest being passed off nearly as taken.

In view of the above physiological and chemical facts, experiments were made in 1858, which, after many trials, succeeded in preparing a *compound idinized cod-liver oil*, which is simply the best Newfoundland cod-liver oil combined with four times as much of iodine, bromine, and phosphorus as that naturally contains.

Pure cod-liver oil varies considerably in composition, as may be seen by comparing the different analyses published in works of chemistry and materia medica. A quart contains 1 to 4 grains of iodine; $\frac{1}{8}$ to $\frac{3}{4}$ of a grain of bromine; $\frac{1}{4}$ to $\frac{1}{2}$ of a grain of phosphorus. In 1860, there was published in the *Repertoire de Pharmacie*, edited by Professor BOUCHARDAT, at Paris, the formula of a cod-liver oil, which contains per quart in addition to the above quantities

Iodine,	16 grains.
Bromine,	2 grains.
Phosphorus	2 grains.

The combination is made so that the oder, taste, and color of the natural oil are preserved.

This preparation being consequently five times more active than the richest commercial cod-liver oil, will tend to restore health by its curative action thus enhanced, in a much shorter time than the simple kind, and attain the desired effect where the other will fail.

The dose of this oil is *only* a tablespoonful for adults, and a dessert or a teaspoonful for children, according to age, three times daily. It may be administered at any hour, but it is preferable to select the time of meals, since we know that the pancreatic secretion manifests itself only during the stomachal digestion, to act immediately on the alimentary principles as soon as they pass from the stomach into the intestines. Though the quantity of iodine is very small in each dose, it acts nevertheless with a greater efficacy than a larger quantity of any of the iodides, for the reason stated by Professor BOUCHARDAT and others, that iodine in cod-liver oil is not eliminated from the system as the other soluable preparations of iodine, but is successively deposited in the economy as the oil is gradually decomposed in the blood.

When iron is required with the oil, the dragees or syrup of pyrophosphate of iron will be found the most agreeable and active adjuvant. It is best for children and delicate persons to take the syrup of iron after the oil."—[*Medical and Surgical Reporter.*

PASSAGE OF AN ANATOMY ACT IN PENNSYLVANIA.

Within the last week the Legislature of this State has passed the following important act, which, it is understood, will receive the approval of the Governor:

An Act for the Promotion of Medical Science, and to Prevent the Traffic in Human Bodies.

SECTION 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly met, and it is hereby enacted by the authority of the same, that, any public officer having charge or control over the same, within the limits of Philadelphia and Allegheny Counties, shall give permission to any Physician or Surgeon of the same county, upon his request made therefor, to take the bodies of such persons as are required to be buried at the public expense, to be by him used within the State for the advancement of Medical Science, preference being given to Medical Schools, public and private; and said bodies to be distributed to and among the same, equitably, the number assigned to each being proportioned to that of its students; provided, however, that if the deceased person, during his or her last sickness, of his or her own accord, shall request to be buried; or if any person claiming to be, and satisfying the proper authorities that he is of kindred to the deceased, shall ask to have the body for burial, it shall be surrendered for interment; or, if such deceased person was a stranger or traveller, who died suddenly, the body shall be buried, and shall not be handed over as aforesaid.

SECTION 2. Every Physician or Surgeon, before receiving any such dead body, shall give to the proper authorities surrendering the same to him, a sufficient bond that each body shall be used only for the promotion of Medical Science within this State, and whosoever shall use such body or bodies for any other purpose, or shall remove the same beyond the limits of this State; and whosoever shall sell or buy such body or bodies, or in any way traffic in the same, shall be deemed guilty of a

misdemeanor, and shall, on conviction, be imprisoned for a term not exceeding five years, at hard labor in a county jail.

Similar legislation has been three times, at least, urged upon our Legislature before, unsuccessfully. Misunderstanding, prejudice, and technical delays, have defeated it. This time, the College of Physicians, of Philadelphia, upon the motion of Dr. W. S. Forbes, gave its official sanction to the effort. A committee, consisting of Drs. Forbes, Agnew, and H. Hartshorne, visited Harrisburg on behalf of the College. Especially through the exertions of Senator Wilmer Worthington, M.D., the act was rescued from burial in Committee, and passed through the Senate. In the House, it was called up by Mr. Freeborn, and passed within a few days. Thus one of the obstacles to medical teaching in Philadelphia is removed, and we are, in this respect, on the same footing as New York. It is a not uninteresting fact, that the passage of a similar bill, the "Warburton Act," by the British Parliament, more than forty years ago, followed the agitation resulting from the discovery of the murders perpetrated by Burke and Hare to obtain subjects for sale, at lower prices than, from want of this bill, they have lately commanded here.

Book Notices.

Obstetrics; the Science and the Art. By Charles D. Meigs, M.D., lately Professor of Midwifery and Diseases of Women and Children, in Jefferson Medical College, of Philadelphia, etc., etc., etc. Fifth edition, revised, with one hundred and thirty illustrations. Philadelphia: Henry C. Lea. 1867.

This is a new and carefully revised edition of Dr. Meigs' well-known work on Midwifery. It is published in excellent style, with substantial binding, and contains 760 pages. The author has long been one of the ablest teachers and writers in our profession. And it is only necessary to remind our readers, that the work before us is everywhere recognized as a standard authority. For sale by W. B. Keen & Co., 148 Lake St.

Practical Dissections. By Richard M. Hodges, M.D., formerly

Demonstrator of Anatomy in the Medical Department of Harvard University. Second edition, thoroughly revised. Philadelphia: HENRY C. LEA, 1867. pp. 285.

This is a plain, concise, and convenient guide to the student in his dissections. It is not a substitute for a treatise on anatomy, but just what the student needs for use in the dissecting room. For sale by W. B. KEEN & Co., 148 Lake St.

Inhalations in the Treatment of Diseases of the Respiratory Passages, particularly as affected by the use of atomized fluids. By J. M. DaCosta, M.D., Physician to Pennsylvania Hospital; Fellow of College of Physicians and Surgeons, etc., etc. Philadelphia: J. B. LIPPINCOTT & Co. 1867.

This is a monograph of 86 pages, very neatly printed and bound. It contains five chapters on the following topics:

1st. The History of Inhalations and the Apparatus Employed.

2d. The Mode of Administering Inhalations.

3d. The Penetrability of Atomized Fluids into the Air-Passages.

4th. Doses of Medicine for Inhalations.

5th. Therapeutic Considerations.

It is a work of real value. For sale by S. C. GRIGGS & Co., 148 Lake St.

Injuries of the Spine; with an Analysis of nearly four hundred cases. By JOHN ASHHURST, Jr., A.M., M.D., Fellow of College of Physicians of Philadelphia, etc., etc., etc. Philadelphia: J. B. LIPPINCOTT & Co. 1867. pp. 127.

This is a well written and very valuable essay on a very important subject. We fully commend it to our readers as worthy of a careful perusal. For sale by S. C. GRIGGS & Co., 148 Lake St.

Code of Medical Ethics, adopted by the American Medical Association. New York: WM. WOOD & Co. 1867.

The publishers have furnished the profession with the *Code*

of Ethics in the form of a small duodecimo volume, neatly printed and bound. A copy of it should be purchased and carefully read by every practising physician and surgeon in the United States. For sale by Wm. Wood & Co., 61 Walker St., New York City.

The Indigestions; or Diseases of the Digestive Organs Functionally Treated. By Thomas King Chambers, Honorary Physician to H. R. H. the Prince of Wales, Consulting Physician and Lecturer on the Practice of Medicine at St. Mary's Hospital, Consulting Physician to the Lock Hospital, Author of "Lectures Chiefly Clinical," etc. Philadelphia: Henry C. Lea. 1867. Chicago: S. C. Griggs & Co. One volume, octavo, pp. 287.

This work has grown out of a volume by the same author, published in 1856,* in which it was essayed to give both the physiology and pathology of digestion, or rather, an anatomical view of this function in health and disease. The subject-matter of the present volume consists principally of two hundred and twenty-seven cases, classified according to the various forms and results of Indigestion, which they specially illustrate; forming, to use the author's figure, a sort of skeleton, articulated together by argument, and made muscularly active by practical observations.

The greater portion of this work is evidently written *currente calamo*, and reads very much as the verbatim report of a clinical lecture would—a lecture, however, by one of matured judgment, intimate knowledge of his subject, and abundant experience. While it thus loses somewhat in style, it certainly gains in a freshness of expression, and an individuality which make its perusal a positive relief, after wading through some of the more ambitious monographs, in which a polished syntax sets forth a scant array of thought and argument, and rhetorical flourishes do duty for facts and illustrations.

Laying down, in a few weighty sentences, (pp. 17, 18,) a broad ground work of accepted premises, embracing the physi-

* "Digestion and its Derangements." By Thos. K. Chambers.

ology of digestion, its vital importance, and its more or less intimate connection with every other function of the human body, Professor CHAMBERS announces the following propositions, which underlie all his teachings of medical theory:—

* * * * all disease is, for the physician, essentially a deficiency of life, an absence of some fraction of the individual organization of force.

* * * * the organic laws of health and disease are one, * * the essence of the latter is a deficiency of the vital action which characterizes the former, * * all successful medical treatment is a renewal of that vital action.

Through the subsequent half-dozen pages of this first section of the introductory chapter, he insists on the paramount importance of assiduous attention to the digestive viscera in every stage of disease; and discusses the peculiarities arising from the oneness of the digestive organs and the relatively greater importance of preserving their integrity, as compared with that of the dual organs, such as the lungs, kidneys, etc. Section II of this chapter is taken up with explanations of the terms and divisions used in his elucidation of the subject.

Chapter II treats of the indigestion of various food, starchy and saccharine, or vegetable—albumenoid—fatty—and watery—with a section of treatment based on the articles of food not digested, and one of treatment based on the general pathological condition. This chapter embraces some valuable hints on dietetics, in the course of which is given the following:—

Ladder of Meat-Diet for Invalids.

1. Whey.
2. Milk and Lime-Water.
3. Plain Milk.
4. Beef Tea.
5. Mutton Broth.
6. Sweetbread.
7. Boiled Partridge.
8. Chicken.
9. Mutton Chop.
10. Roast Leg of Mutton.

This chapter is illustrated by details of forty-nine cases, which have all the *vraisemblance* of clinical studies, and the mode of making which, by the way, deserves transcription:—

I make it a rule, to which exceptions need be very few, to write all prescriptions and papers of advice in a copying-book, which makes a duplicate of them by means of transfer-paper;

and at the back of this transcript I write, usually with the patient before me, his symptoms and history at least as far as to explain my reasons for the advice, before I go on to the next page.

Habits of social life leading to indigestion form the subject of the next chapter, and include eating too little—too much—sedentary habits—tight lacing—sexual excesses—compression of the epigastrium by shoemakers—solitude—intellectual exertion—want of employment—abuse of purgatives—of alcohol—tobacco—tea—opium.

Abnormal Pains (chap. IV), Vomiting (chap. V), Flatulence (chap. VI), are equally full in illustration and treatment; while the chapter on Diarrhœa is a model of analytical brevity. The following chapter treats of Constipation and Costiveness, and chapter IX of the varied and often obscure diseases of the nervous system arising from indigestion.

One or two samples of the style in which our author gives his views and we must conclude:—

* The chief office of the mucous membrane is *not* to secrete mucus. It is most active when it is not doing so, and its activity is decreased just in proportion to the copiousness of the mucus. Typical health certainly consists in its absence; robust people pass weeks without expectorating; many find their handkerchiefs clean and unfolded after several days in their pockets, spite of all the voluntary and involuntary irritants to which the Schneiderian membrane is subject; and the urinary and intestinal outlets ordinarily contribute only an infinitesimal quantity, which may be attributed to a temporary defect in some fraction of their large area.

The real office of mucous membrane is to offer a passage inwards for oxygen, water, fat, albumen, and other useful substances, and to defend the less easily renewed tissues beneath it from the deleterious action of external agents. These functions it best fulfils when it is bedewed with a moderate exhalation, and not with mucus. Chap. II.—Indigestion of Starch and Sugar.

* * * * * * * * * *

It is truly by aid of the digestive visera above, that consumption can be curable. Medicines addressed to other parts may be indirectly useful sometimes, but they more commonly

impede the recovery; whereas aid, judiciously given in this quarter is always beneficial and often successful.

The chest is the battle-field of past conflict; the lymphatic duct the drill-ground for new levies of life.

* * * * * * * * * *

As easily assimilated oil comes, in fact, into the short list of directly life-giving articles in the pharmacopœia; for it is itself the material by which life is manifested. Hence, under its use, beneficial influences are exerted throughout the whole body; old wounds and sores heal up; the harsh, wrinkled skin regains the beauty of youth; debilitating discharges cease, at the same time that the normal secretions are more copious; that the mucous membranes become clear and moist, and are no longer loaded with sticky epithelium; the pulse, too, becomes firmer and slower—that is to say, more powerful, for abnormal quickness here is always a proof of deficient vitality. Such are the effects, perfectly consistent with physiology, of supplying a sufficiency of molecular base for interstitial growth.

To find the easiest assimilated oil, and to prepare the digestion for the absorption of oil, are the main problems in the cure of consumption. (Chap. II—Indigestion of Fat, pp. 58–9.)

Clinical Reports.

FROM THE LECTURES OF PROF. DAVIS IN THE MEDICAL, AND PROF. ANDREWS IN THE SURGICAL WARDS OF THE MERCY HOSPITAL.

[*Reported for the Examiner.*]

[The Lectures from which these "Notes" are made, being delivered before the Summer Class of the Chicago Medical College, necessarily contain much matter of a purely elementary character. No attempt is, therefore, made to report them in full, as such information, for the majority of the readers of the EXAMINER, would be, it is presumed, supererogatory.

The "Notes" are intended simply to comprise outlines of such cases as may possess sufficient importance, together with a rationale of the treatment or summary of operation, and such didactic hints as may seem valuable—aiming to be a practical

elucidation of the treatment, medical and surgical, rather than a syllabus of the Lectures.—R.]

SERVICE PROF. N. S. DAVIS, M.D., VISITING PHYSICIAN.

Therapeutic Value of Tinct. Chloride of Iron and of the Sulphites in Treatment of Erysipelas.—Ætat. 41; American; occupation, carpenter; admitted for treatment, March 27th, laboring under a well-marked attack of *facial erysipelas*, the inflammatory stage having probably existed about forty-eight hours, although he had been complaining previously, and had taken some purgative medicine before his admission into the hospital. The febrile symptoms not being very urgent, and there being no evidence of cerebral congestion, he was ordered twenty-five drops of the tinct. chloride of iron (*tincture ferri chloridi*, Ph. U. S.), well diluted with sugar and water, every two hours during the ensuing twenty-four; after which, the interval was to be lengthened to three hours during the second day, and to four hours on the third day, when it was confidently anticipated the septic character of the disease would be entirely destroyed, and convalescence established.

The sulphites of soda and lime would undoubtedly produce the same results as antiseptics—in fact, their efficiency in the treatment of erysipelas, as well as in all other of the large and important class of catalytic diseases, seems to depend almost exclusively, on their power to *neutralize* the blood-poison. The tinct. chloride of iron possesses this power to a great extent; but in addition to this, it is one of the most reliable tonics, and where not contra-indicated by a high degree of febrile excitement, by cerebral congestion, by such constitutional disturbance as is manifested by a strong, full, and frequent pulse, excessive heat of surface, and severe pain, we will find its use followed by a prompter convalescence, and fewer unpleasant sequelæ, than by the use of alkaline sulphites.

These latter would seem, from our clinical observations and experiments thus far, to be more especially useful in retarding or arresting septic or necremic changes in the blood; and where the indications point simply to such ends, the sulphites are val-

uable agents. In the epidemic of erysipelas in this city, during the fall of 1863, in which many cases of an uncomplicated sthenic character occurred, they were found highly useful, and by their free exhibition, at an early stage of the disease, did much to cut short the period of its duration.

Cardiac Disease—Post Mortem Appearance in.—The death of the subject of the clinique, reported in the February number of the *Examiner*, (page 107), gave an opportunity for an examination of the pathological condition, which was duly presented to the class. Previous to his death, however, the attention of the class had been again called to him, and the hour pretty fully occupied in the physical exploration of his chest; so that on the examination of the lesion, after death, the students were enabled to appreciate the value of the pathognomanic symptoms they had become familiar with through life.

Post Mortem:—There was general serous infiltration of the areolar tissues, throughout the body; a moderate accumulation of serum in the peritonial and pleuritic cavities; and a completely œdematous condition of the left lung. The heart presented a rare and interesting combination of pathological changes. The mitral valve was thickened and indurated, and the opening through it moderately contracted. The tricuspid and semi-lunar valves were all natural in structure. The walls of the left ventricle were natural in thickness, but its cavity is moderately elongated and pouched at the apex. The walls of the right ventricle were greatly hypertrophied, being in some places more than three-quarters of an inch in thickness. The columnæ carnae were correspondingly increased in size, but the cavity of the ventricle was not materially altered in size or shape. The trunk and cardiac orifice of the pulmonary artery were so much dilated that the valves in the latter were insufficient to close it. The full explanation of these pathological changes in the heart, and their relation to the general symptoms, and physical signs presented before the death of the patient, was made very interesting and instructive to the clinical class.

Early Diagnosis of Phthisis.—P. McC., æt. 51, Irish; has

been an inmate of the hospital some two or three weeks, suffering from general debility, and unusually enfeebled cardiac action. His general appearance, at the time of his admission, suggested a suspicion of crude tuberculosis as being at the origin of his troubles,—causing his debilitated condition, by impeding the functions of the lungs, diminishing the gross amount of assimilation, and causing an imperfect oxygenation of the blood, by which the vital properties of all the tissues were affected. Careful and repeated examinations, however, failed to detect any evidence of disease in the lung. Within the past few days a peculiarly fœtid odor, such as is occasionally observed accompanying the existence of an old glandular abscess, has been detected; and auscultation and percussion now exhibit such departure from the normal standards, as to warrant presenting him before the class, as an example of incipient tubercular phthisis. In the infra clavicular region of the right side, there is to be found a prolongation of the respiratory murmur, —not rough or loud, or in any other wise changed, but simply a prolonged expiratory sound. There is also a slight dulness on percussion in this region, though very slight and requiring close attention to detect the change. When the patient speaks, there is also a diffused vibratory jar perceptible. Thus there exist evidences, both of impaired capacity for air, and of increased density of structure in the upper part of that lung. In the cardiac region auscultation reveals feebleness of the heart's action, but without any abnormal sounds.

The primary cause of his trouble undoubtedly depends on a deficient innervation, causing a general feebleness of functional life; and the defective assimilation thus produced, is usually well adapted to the development of tubercular material, especially at his age.

The general indications of treatment in these early stages of the deposit and development of tubercular matter, are first to train the patient to regular muscular exercise, daily increased, and, as much as possible, out-doors in the open air; next, generous diet—let him eat all the food he can assimilate. If there be evidence of imperfect oxygenation of the blood, give six or

eight grains of the chlorate of potassa in some mucilaginous fluid, after each meal. I am fully satisfied that this salt promotes oxygenation, and, consequently, assimilation. The presence of chlorine salts in the blood increases the capacity of that fluid for the absorption of oxygen from the air in the lungs. If in addition to this it be deemed advisable to produce an impression on the nervous system itself, the hyoscyamus and scutellaria will be found useful in allaying that nervous irritability which is almost universally manifested in a depressed condition of the system; while iron and nux vomica, or strychnia strongly increase nerve force and tone. The formula in general use in this hospital for such indications, is this:—

℞ Ext. Hyoscyamus, ---------- 30 grs.
Ext. Scutellaria, ---------- 30 grs.
Ferri Sulphas, ---------- 30 grs.
Aloes Pulv., ---------- 10 grs.
Ext. Nux Vom., ---------- 10 grs.

Mix, divide into 30 pills; take 1 before each meal.

For the nux vomica, strychnia may be substituted in the proportion of one-thirtieth of a grain to each pill; but the extract of nux vomica is preferable, if it can be procured of a reliable character, on account of its more persistent and uniform tonic action, while the alcaloid acts more directly as a stimulant to the spinal cord and medulla oblongata. Or the hydrastis canadensis, in the form of extract, and dose of one or two grains, may be substituted for the nux vomica, or be used in combination. In a proportion of these patients, and where tubercular deposit actually exists, substitute the cod liver oil for the pill, giving from a dessert to a table-spoonful three times a day. The oil may be emulsified by the addition of a half drachm or a drachm of the liquor potassæ to the ounce of oil, and in this way may be taken by patients of squeamish stomachs, or in cases of pyrosis or heartburn—producing an antacid effect, and should be taken from thirty to forty-five minutes after eating.

SERVICE—PROF. E. ANDREWS, M.D., SURGEON-IN-CHARGE.

Radical Cure of Hydrocele.—The occasional failure of the irritating injection to set up a sufficient amount of adhesive inflammation to effect a cure in this disease, and the objection to making more incisions than are absolutely necessary, rendering the seton obnoxious, has led Dr. Andrews to devise a modification, embracing the advantages of both plans without the inconveniences from the failure of the one, or the double incision of the other.

A. E. W. ætat. 23; admitted to hospital April 15th; hydrocele of the left side, caused by a kick in the scrotum by his sleeping bedfellow, about six months previously. The tumor had attained only a moderate size, but, owing to the existence of a varicocelous condition of the left spermatic cord, it was deemed desirable to get rid of the increased weight of the distended scrotum. The operation, as performed, consisted of the introduction of the canula in the ordinary manner, and the injection of about half an ounce of tincture of iodine, care being taken that the canula was within the sac itself, and not opening into the cellular tissue—(a neglect of which point had caused the sloughing away of the entire scrotum in a case which had fallen under the operator's notice, in which the timid surgeon had injected his irritating fluid into the tissue, instead of into the sac.) After the injection, a piece of tape was pushed up through the canula, by means of a probe, into the sac, and an inch or two of it left within in an irregular, crumpled-up ball; the canula was now withdrawn over the dependent end of the tape, leaving this last hanging out of the orifice. After from thirty-six to forty-eight hours, a sufficient amount of inflammation is excited, and the third or fourth day the tape may be withdrawn, freely bathed in pus.

By this means the amount of irritation can be pretty accurately graduated; and while it relieves the operation of the uncertainty of the simple injection, all the efficiency of the seton is obtained in a much neater and more workmanlike manner.

Ununited Fracture of Humerus.—Thomas McCarty; ætat.

23; Irish; fell off a load of lumber Sept. 25th, 1866, fracturing the right humerus, about the junction of the middle and upper thirds. Admitted to hospital March 14th, 1867; entire want of union between the two fragments; no apparent exciting cause. Was operated on by perforation soon after his admission, and strict attention given to his general health; no degree of inflammation, however, was induced, nor has there been yet, although the operation has been thrice repeated, making four operations in all in the space of thirty days, each operation increasing in severity in the extent and thoroughness with which the tissues have been broken up. Fifth week, from admission, operated again by introducing, through a small incision, a common inch and a half wood-screw through the fragments in such a way as to secure perfect apposition and immobility, except a slight lateral motion allowed by the play of the screw.

It is to be observed, that hitherto the operations have entirely failed in producing inflammation, and we may now look for some, though it is to be confessed, not a complete union as the result of this procedure.

April 22d, a sufficient degree of inflammatory action having been obtained, the screw was to-day withdrawn, and the arm dressed in the usual way.

Andrews' New Plastic Operation.—S. ætat. 21; in June, 1866, while carrying a coal-oil lamp broke the same, and, falling into the flames, was severely burned about the face; was admitted to hospital April 7th, 1867, with the loss of one eyebrow, ectropion of all the eyelids, quite extensive and much the worst of the left eye, and loss of both alæ of the nose. April 10th, operated on the left eye by the curved method with revolving flaps, as described in the EXAMINER for 1866, page 465. It is proposed to attempt the restoration of the alæ of the nose by the same method, and as the patient presents an unusually extensive field for the demonstration of the plastic operation, an effort will be made to furnish the readers of the EXAMINER with a full report of the various operations and their results.

Editorial.

CHICAGO MEDICAL SOCIETY—ANNUAL MEETING.—The regular annual meeting of the Chicago Medical Society was held in the Court House, on the evening of the 5th of April, 1867. The meeting was well attended, and the election of officers for the ensuing year, resulted as follows: President, Dr. J. P. ROSS; Vice-President, Dr. JOHN REID; Secretary, Dr. H. M. LYMAN.

Sanitary Committee.—Drs. N. S. Davis, R. G. Bogue, and R. M. Lackey.

Censors.—Drs. E. L. Holmes, Thos. Bevan, John Reid.

Committee on Ethics.—Drs. S. Wickersham, G. Paoli, T. D. Fitch.

Delegates to the American Medical Association.—Drs. Macalister, Paoli, Wickersham, Reid, Blake, Bogue, Lackey, Fitch, and Fisher.

Delegates to the Illinois State Medical Society.—Drs. Davis, Trimble, Fisher, Macalister, Bogue, Holmes, Lackey, Fitch, Hatch, Hildreth, Nelson, Loverin, Tucker, Reid, Blake, Quales, Fenn.

A vote of thanks was unanimously tendered to the retiring officers for the faithful and prompt manner in which they had discharged their respective duties during the past year. After the transaction of some miscellaneous business, the society adjourned.

CHICAGO MEDICAL COLLEGE APPOINTMENTS.—During the past winter, Prof. F. MAHLA, who had ably filled the two Chairs of Chemistry from the first organization of the College, tendered his resignation, in consequence of the pressure of other business. The places thus made vacant have been filled by the appointment of ——— DAVIES, Prof. of Chemistry and Physics in the Lawrence University, at Appleton, Wisconsin. Dr. DAVIES is an enthusiastic cultivator of the natural sciences, and will bring to his new position a high reputation, founded on several years' experience as a practical teacher. DANIEL NELSON, M.D.,

who has given the course of instruction on Physiology and Histology, during the past lecture term, in a manner highly satisfactory to the Faculty and Students, has now been appointed to the full Professorship in that department. Prof. H. A. JOHNSON, who felt compelled last year to resign the Chair of General Pathology and Public Hygiene, on account of ill-health, has again accepted a Professorship, to which has been assigned the full consideration of Diseases of the Chest. There is an excellent class of students in attendance on the Spring and Summer Course of Instruction, now in progress, and the College is steadily advancing in its career of usefulness and prosperity.

ILLINOIS STATE MEDICAL SOCIETY.—The next Annual Meeting of the Illinois State Medical Society, will be held in the Hall of the House of Representatives, at Springfield, commencing on the first Tuesday in *June*, at 10 o'clock, A. M.

We are authorized, by the Committee of Arrangements, to state, that the Chicago, Alton, and St. Louis, and the Toledo, Wabash, and Great Western Railroads, will pass Members of the Society to and from the Meeting, over these roads, for one fare and one-fifth. It is also expected that the Illinois Central will do the same.

N. S. DAVIS,
Per. Sec. Ill. State Med. Society.

Chicago, April 15, 1867.

We take pleasure in calling the attention of our readers to the following notices:—

TO PHYSICIANS.—At the request of several members of the profession, Dr. Horatio R. Storer will deliver a private course of twelve lectures, upon the Treatment of the Surgical Diseases of Women, during the first fortnight of June, at his rooms in Boston. Gentlemen attending the course, will be required to show their diplomas. Fee $50.

Hotel Pelham, Boston, March 29, 1867.

CHARITABLE EYE AND EAR CLINIC, No. 305 STATE, COR. VAN BUREN ST.—Trustees:

Hon. Lyman Trumbull, President.
C. T. Bowen, Esq., Secretary and Treasurer.
W. E. Doggett, Esq.
C. H. Holden, Esq.
Jos. G. Hildreth, M.D. Attending Surgeon.

This institution is open daily, at 12 o'clock, for the treatment of the poor of the Northwest.

Clinical instruction will be given during the lecture season.

Indiana State Medical Society.—The next regular meeting of the Indiana State Medical Society will be held at Indianapolis, Ind., on Tuesday, May 21st, 1867. We hope all our readers in that State will remember the day, and see that their respective localities are well represented.

Chicago Medical Journal.—This periodical has again changed hands. Drs. Holmes, Lyman, and Lackey have vacated the editorial chair, and given place to Dr. J. Adams Allen, Professor of Principles and Practice of Medicine in Rush Medical College. The retiring editors were men of talent, industry, and integrity, and their sudden displacement will be regretted by many. Their successor is well known to the readers of that journal, he having occupied the same position in connection with the late Prof. Brainard, three or four years since.

Money Receipts from Feb. 21st to Mar. 22d.—Drs. R. D. Cogswell, Nauvoo, Ill., $3, E. Robbins, Pontoosuc, Ill., 3, P. G. Kelsey, Fort Wayne, Ind., 5, W. L. Krieder, Prairie City, Ill, 3, Wm. Hoyne, Monmouth, Ill., 3, A. C. Corr, Carlinville, Ill., 3.00, G. Bradley, Waverly, Ill., 3, D. La Count, Chilton, Wis., 8, G. A. Bradwell, Prophetstown, Ill., 3, H. C. Lester, Newcomer, Ind., 3, S. D. Mercer, Omaha, Neb., 3, M. A. McClellan, Canton, Ill., 3, St. Joseph Medical Society, St. Joseph, Mo., 3, John Griffin, Newton, Ill., 3, M. S. Wilson, Griggsville, Ill., 3, J. H. Hollister, Chicago, Ill., 5, Herbert Harris, Wheeler, Ind., 3., E. V. Doles, Chicago, Ill., 3.

MORTALITY REPORT FOR THE MONTH OF FEBRUARY:—

CAUSES OF DEATH.

Accidents,	2	Fever, Scarlet,	10
Abscess,	1	Fever, Typhoid,	5
Bronchitis,	1	Fever, Childbed,	2
Cancer,	2	Fever, Typhus,	1
Colds,	6	Hydrocephalus,	10
Croup,	8	Inflammation of Bowels,	7
Consumption,	40	Inflammation of Brain,	3
Convulsions,	43	Inflammation of Lungs,	11
Childbed,	4	Inflammation of Throat,	1
Congestion of Brain,	1	Inflammation, not stated,	2
Congestion of Lungs,	7	Killed,	1
Delirium Tremens,	1	Marasmus,	1
Drowned,	1	Measles,	1
Decline,	1	Old Age,	9
Diphtheria,	5	Poisoning,	1
Dropsy,	7	Paralysis,	3
Disease of Brain,	1	Pneumonia,	2
Disease of Bowels,	1	Rheumatism,	1
Disease of Heart,	4	Suicide,	1
Disease of Liver,	2	Stillborn,	8
Disease of Lungs,	5	Spasms,	4
Disease of Hip,	1	Small Pox,	3
Erysipelas,	1	Teething,	12
Fever, Congestive,	6	Whooping-Cough,	10
Fever, Remittent,	3	Ulcer,	1
Fever, Spotted,	1	Unknown,	15

Total,	280
Total number last year for the month of March,	254
Increase,	26

DIVISIONS OF THE CITY.

North, 67	South, 90	West, 123	Total, 280

Total number during the month of March,	280
Total number during the month of February,	255
Increase,	25

AGES OF THE DECEASED.—Under 5 years, 143; over 5 and under 10 years, 16; over 10 and under 20, 16; over 20 and under 30, 29; over 30 and under 40, 27; over 40 and under 50, 17; over 50 and under 60, 7; over 60 and under 70, 9; over 70 and under 80, 10; over 80 and under 90, 2; over 100, 2; unknown, 2. Total, 280.

NATIVITIES.

Chicago,	151	France,	1	Sweden,	2
Other States,	48	Germany,	38	Scotland,	3
Bohemian,	1	Holland,	1	Unknown,	1
Canada,	4	Ireland,	25		
England,	2	Norway,	3	Total,	280

The attention of the members of the Massachusetts Medical Society is respectfully called to the following communications from the *Boston Medical and Surgical Journal:*—

Treatment of Acute Rheumatism. Messrs. Editors,—Having for a year past used what I consider a new remedy for rheumatism, and with better success than from any other remedy, I consider it proper to ask the profession to make a trial of it. It is the syrup of lime, made according to Trousseau's prescription, as found in Parrish's Pharmacy. I have used it, according to the severity of the case and the age of the patient, in the dose of ten (10) drops to forty-five (45) drops, and repeated in from two (2) to six (6) hours, as symptoms have seemed to demand. In but one (1) case has any opiate been required from the beginning. Two (2) cases were complicated with Bright's disease, as indicated by the great abundance of albumen, and the casts, as seen in the urine. In one of these the albuminuria entirely dissappeared, and in the other it has been largely diminished.

There has been no constipation, but generally looseness of the bowels, after a couple of days' treatment.

The medicine is best taken in unskimmed milk, in quantity from a tablespoouful to four (4) ounces, according to the size of the dose of syrup.

Hoping that other members of the profession may meet with the success which I think I have had, I am very truly yours,

Boston, Eebruary 23, 1867. CHAS. E. BUCKINGHAM.

For the information of our readers, we copy from Parrish's Pharmacy the prescription alluded to:—

"CALK SACCHARATUM, SYRUPUS CALCIS.—Trousseau used the following proportions for producing a solution of lime by the aid of sugar:—I part of slaked lime, 10 parts water, and 100 parts syrup are boiled together for a few minutes, strained and diluted with four times the weight of simple syrup.

"This syrup has an alkaline taste and reaction, and is the solution of a chemical compound of sugar and lime. It is used for the same purposes as lime water, but on account of its causticity it is necessary to dilute it considerably. It is given to children in the quantity of twenty or thirty grains during the day; adults take from two to three drachms during the same time."

City and Country Population of England.—According to the Registrar-General, in 1861 the population of England living in the cities and large towns amounted to 10,930,841; of those living in the country and in small towns, 9,134,386.

MEDICAL THERMOMETERS.

The undersigned offer to the Profession the following finely finished, very accurate Medical Thermometers,

Graduated on Ivory,

To ½ Degrees and ¼ Degrees:

1. Thermometer, 5 to 6 inches long, straight, ½ degrees. in neat Morocco Case, ---------- $3 50
2. Do. Do., bent, ---------- 4 00
3. No. 1 and No. 2, in one case, ---------- 7 00
4. Thermometer, 9 to 10 inches long, straight, ¼ degrees, in neat Morocco Case, ---------- 6 00
5. Do. Do., bent, and *Self-Registering*, ---------- 8 00

Also, Microscopes of All Sizes and Patterns.

FINE POCKET BATTERIES,

French Manufacture, dimension 8x4x2 in., etc., etc.

☞ Catalogue furnished on application.

JAMES FOSTER, Jr., & CO., Opticians,
46 Clark St., near Sherman House.

CHICAGO MEDICAL COLLEGE.

The regular Annual Lecture Term in this Institution will commence on the first Monday in October, and continue until the first Tuesday in March following. Clinical Lectures *daily* throughout the term.

FACULTY.

N. S. DAVIS, M.D., Professor of Principles and Practice of Medicine, and of Clinical Medicine.

W. H. BYFORD, M.D., Professor of Obstetrics and Diseases of Women and Children.

EDMUND ANDREWS, M.D., Professor of Principles and Practice of Surgery, and of Military Surgery.

F. MAHLA, Ph. D., Professor of Organic Chemistry and Toxicology.

H A. JOHNSON, M.D., Emeritus Professor of Gen. Pathology and Public Hygiene.

J. S. JEWELL, M.D., Professor of Descriptive Anatomy.

J. H. HOLLISTER, M.D., Prof. of Gen. Pathology and Public Hygiene.

RALPH N. ISHAM, M.D., Professor of Surgical Anatomy and Operations of Surgery.

M. O. HEYDOCK, M.D., Professor of Materia Medica and Therapeutics.

F. MAHLA, Ph. D., Professor of Inorganic Chemistry.

R. J. PATTERSON, M.D., Professor of Medical Jurisprudence.

DANIEL NELSON, M.D., Lecturer on Physiology and Histology.

J. M. WOODWORTH, M.D., Demonstrator of Anatomy.

For the Winter Term, admitting to all the Lectures in the College, ... $50.00
Graduation Fee, ... 20.00
Matriculation Fee, ... 5.00
Dissecting Ticket, ... 5.00
Hospital Ticket, ... 6.00

The Summer Reading and Clinical Term commences on the second Tuesday in March, and continues until the first Tuesday in July; and is free to all matriculated Students of the College. Boarding, $3.50 to $4.50 per week. For further information, address

E. ANDREWS, *Sec'y of the Faculty.*

THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M.D., EDITOR.

VOL. VIII. JUNE, 1867. NO. 6.

Original Contributions.

ARTICLE XXIII.

CASE OF HYDROPHOBIA.

BY DANIEL T. NELSON, Prof. of Physiology and Histology.

T. P. A., a bright, intelligent boy of 15 years, was bitten by the pet family dog on the morning of Nov. 27th, 1866. The dog had shown signs of illness for several days, was irritable, was frequently biting his tail, which seemed covered with some kind of an eruption at its extremity, whether the cause or result of the biting, not known. Character of the eruption, whether vesicular or pustular, not known. Did not eat well, but took *some* food and *drinks*. Drank water the day he bit patient. Did not froth at mouth, or show any unusual symptoms except those mentioned, and these were not considered by the family of any consequence, as the dog had had three such attacks before—one during each of the three previous winters. The only noticeable feature of this attack was the time of its occurrence, earlier than usual in the season. The morning on which he bit the patient, he seemed better, and ate a cracker which he gave him. It was while feeding him with this that he snapped at him, apparently without provocation, inflicted a crescent shaped wound an inch and a half long in the left cheek, extending from the angle of the mouth, upwards and outwards, passing through the whole substance of the cheek.

From the previous history of the dog, having had three attacks apparently in all respects similar, nothing was thought of the wound at the time. It was simply washed and drawn together with adhesive straps, when it healed kindly.

During the day, after biting the patient, the dog presented no different symptoms, though he was not allowed to enter the house on account of his conduct in the morning. A few days after he was found dead, whether killed or not, not known.

No further trouble of any kind was experienced by the patient from the wound until Tuesday, Feb. 26, 1867, when, on coming in from play, snow balling, etc., he complained of "not feeling well;" throat a little sore; "that he had taken cold;" headache. Slept pretty well; sleep disturbed by dreams of fighting, etc.

Wednesday, Feb. 27th.—Did not get up in the morning; sleepy; no appetite; thirsty; drank lemonade freely; throat no better.

A homœopathic physician was called, who is said to have treated him for diphtheria. About 12, midnight, began to complain of an uneasy feeling—a pricking sensation—about the cicatrix on the cheek. About the same time, also, slight convulsive movements were noticed in the voluntary muscles. Did not sleep.

Thursday morning, Feb. 28th.—Convulsive movements more decided, and easily excited; occur spontaneously every half hour, increasing in severity and frequency during the morning. Some difficulty in swallowing; speaks rapidly and loud, (latter, perhaps, on account of slight deafness of mother.)

February 28, 3 P.M.—I first saw the patient; found him sane, but restless; eyes rather wild and staring; pupil somewhat dilated; tongue slightly furred; protruded spasmodically, and with difficulty; respiration labored; pulse quick; sufficient strength; heart's action accelerated; fluttering; face flushed; countenance excited; skin moist, natural; extremities extended, or moving spasmodically; cannot speak on account of spasmodic action of laryngeal muscles; complains of sense of suffocation in throat and chest; want of sleep and thirst; water and all

fluids immediately rejected by sudden and powerful contraction of muscles of throat and chest; ice and all solids spasmodically seized by the mouth, and at length swallowed, but with difficulty. Any attempts at moving the body, swallowing fluids, or speaking, produce tetanic spasms of most of the voluntary muscles; opisthotonos, with strongest convulsions; bowels moved Tuesday; urine passed. Thursday, P. M., 3 o'clock.

Treatment, *3.15 P.M.*—Atropine, gr. $\frac{1}{25}$. *3.30 P.M.*—Applied ice bag to whole length of spine. *3.45 P.M.*—Feels better; swallows solids, and breathes with less difficulty; had infus. tobacco made, ℥iij. to Oj., and boiled to ℥viij. *4 P.M.*—Atropine, gr. $\frac{1}{50}$, infus. tobacco, ℥ij., made into bolus, with common flour; swallowed without much difficulty; ice as desired. *4.30 P.M.*—Convulsive movements again on the slightest exertion, but not so strong. Atropine, gr. $\frac{1}{50}$; too restless to keep ice bag to spine; pupils dilating well from atropine; delirium; face more flushed and eyes injected; breathes easy, and talks freely; desires to leave the room. *5 P.M.*—Infus. tobacco ℥ss., in bolus; vomited; ordered to be kept quiet. *5.30 P.M.*—Henry M. Lyman, M.D., called in counsel; delirium; more quiet; pupils well dilated; pulse 130, and losing strength; patient seems exhausted; lies upon back, head thrown back (ophisthotonos). No change in plan of treatment deemed advisable; no light or attendant allowed in the room; perfect quiet enjoined. *7.30 P.M.*—Atropine, gr. $\frac{1}{50}$. *8.30 P.M.*—Atropine, gr. $\frac{1}{50}$. *9.30 P.M.*—Ol. tobaci gtt. j., instead of infus. on bread pill. *10 P.M.*—Failing rapidly; respiration labored; not conscious. *10.30 P.M.*—Opisthotonos increasing, as also general convulsions; respiration more labored; white, frothy mucus fills the mouth for the first time; saliva not noticeably increased or changed in character before; chloroform given by inhalation; muscles of chest relax, and respiration more easy; general convulsions also less marked.

Kept sufficiently under its influence to quiet the tetanic spasms until death, 11.30 P.M.; died very quietly. At 11 P.M. the white mucus in mouth became of a rusty hue.

Remarks.—The history of this dog has suggested to my mind the following queries:—(1.) Had this dog had hydrophobia three times before, and recovered, not extending the disease by happening not to bite any one? Or (2) was this a severe attack, proving fatal at last, (as it is not known but the dog died of the disease.) But he did not present many of the supposed symptoms of the disease? Or (3) are there other diseases to which the canine race is liable, during the presence of which the bite of the animal will produce rabies in the human subject?

Indications for Treatment.—Without theorizing about the materia morbi, several indications for treatment are plainly presented. 1. To quiet the irritability of the nervous system, particularly of the cord. 2. To prevent reflex action. 3. Support the strength. To meet the 1st, the infus. tobacco was given till the ol. tobaci could be procured, nicotina not being in this market.

Tobacco in some form was suggested, from its seeming efficacy in tetanus, which also affects the cord. But how shall we say it acts? Does it act directly upon the nervous tissue, paralyzing it, without particularly affecting others. The ice bag was applied to the spine on the supposition that the cord was hyperæmic, from its excessive irritability, and in this way it was hoped the engorged vessels could be made to contract, and thus the irritability reduced. If this be true, that the cord is in a hyperæmic state, might not several other remedies be used with success—drugs which are said to act upon the muscular coat of the arteries—such as aconite, ergot, turpentine, and perhaps tr. chld. iron and electricity—a strong current—and the bromide of potassium, recently recommended? Does this act in the same way?

Will some or any of these drugs act upon vessels in the cord, and not upon vessels elsewhere?

But the second indication suggested was to prevent reflex action. On the authority of Dr. BROWN-SEQUARD, belladona in the form of its active principle, atropine, was used. And is its action really like tobacco, to produce paresis of nervous tissue, acting upon both elements of that tissue, or does it act

only upon the fibrous motion, and thus prevent the conveyance of impressions? With this in view, Dr. BROWN-SEQUARD advises the removal of an inch or two of the nerve connecting the wound with the cord. The 3d indication was in this case toward its close, difficult to meet, all fluids being rejected by the mouth, and even enemas were not tolerated till late, perhaps too late to be of service. Animal broths, and all nutritious and easily digested articles of food, would seem to be indicated, given by the mouth if we can, by the rectum if we must.

NOTES ON SPANISH SAFFRON.

BY HENRY BIROTH, of Chicago.

Read before the Chicago College of Pharmacy.

From some remarks on saffron, at one of our meetings, I have been induced to test its value in regard to purity. I had three samples to dispose of, one from a New York importing house, the others from two Chicago wholesale houses. I was astonished to find them all extensively adulterated. In 100 parts of the saffron, I found

In sample No. 1, only 55 parts genuine crocus.
In sample No. 2, only 37 " " "
In sample No. 3, only 42 " " "

the rest were all colored flowers, mostly of marygold or calendula officinalis. It is no wonder that saffron is adulterated. It shares the fate of most of our costly imported drugs, such as opium, musk, the essential oils, etc.

The test is very simple and interesting. Put a few pieces of saffron on a glass plate, and touch them with concentrated sulphuric acid; the real stigmas assume a beautiful indigo-blue color, while the adulterations remain unchanged. Having experimented in this manner for a little while, you will get so well acquainted with the genuine saffron that you can readily separate it from the adulterations, with the pincers.

The U. S. Dispensatory, in speaking of the tinct. of aloes and myrrh, says:—The saffron, which has been retained in compliance with former prejudices, can add but little to the efficacy of the preparation, and being very expensive, has with great propriety been much reduced in the U. S. formula; and under the head of saffron, it says again:—*At present the chief use of the saffron is to impart flavor and color to officinal tinctures.* This is decisive to us. Now, allow me to ask you why the Pharmacopœa wishes to impose upon us a drug so costly and so much adulterated, merely for the purpose of flavoring and coloring three or four tinctures? Do these tinctures need a *coloring* substance, being too light without it, or is it necessary that they should be *flavored?* These tinctures are: Acetum opii, tincture of aloes and myrrh, and comp. tinct. of cinchona, which are sufficiently *colored* and sufficiently *aromatic* without saffron. We must seek some other reason. Saffron had been extensively used in olden times, and especially by the alchemists, who attributed properties to it which were nearer to superstition than to reality. The passion for gold, the mania of search for the philosopher's stone, the alcahest and the great elixir, or the red tincture, induced them to try almost everything; no wonder that saffron, whose tincture shows such a beautiful golden-yellow color, had to play also its part in this drama of development of Alchemistry.

Some of these old preparations, which contained saffron, are in use still in our Pharmacopœas, though greatly changed, of course. The first and most prominent of these is the great pharmaceutical and medical monstrum *theriaca*, now conf. opii, which will now celebrate its 2000th birthday, Mithridate, of Pontus, 88 A. Ch. being its inventor. It originally consisted of over 100 different drugs, and was always prepared in the City Hall with imposing ceremonies, under the protection of the municipal authorities; it was esteemed as a panacea for all diseases, internally and externally. Then the *sacred elixir*, now tr. of aloes and rhubarb, the *hiera picra*, the *elixir of paregoric* of Am. Disp. 1820, the *liniment. sapon. camph.*, according to Gray's Suppl. of Lond. Pharm., the *laudanum* of Lond. Ph.,

1720, the genuine formula of *Sydenham's tinct. of opium*, the *vinum rhei*, according to Gray's Suppl., the *tincture of rhubarb*, London, 1788. All these preparations orginally contained saffron, which in course of time was left out as the formulæ were changed more and more. Others retained the saffron as our:

Tinct. of Aloes and Myrrh, or the old elix proprietatis paracelsi.

Pills of aloes and myrrh, or Rufus Pills.

Comp. tinct. of cinchona, or Huxham's elixir.

Acetum opii, or the Quaker's black drops.

But even with these, it is only a matter of time. Such therapeutists as ALEXANDER, ORFILA, and MURRAY, have proved by experiments that crocus has but little activity, and the U. S. Dispensatory itself does not consider it a medicinal agent in its preparations, as before stated, merely using it for flavor and color.

To-day it is but a mistaken reverence for ancient formulæ—a fear of lifting the veil of mysticism. I do not intend to say that we shall not respect the Pharmaeopœa, or that we shall do as we please, or as we individually think more proper; on the contrary, the Pharmacopœa shall and must be our rule, our guide in pharmaceutical business, and we must adhere to it in our preparations, until a change is made. And here allow me to testify my high appreciation of the principles inculcated in the excellent essay of Mr. MILL, our Secretary, published in the Proceedings of Am. Ph. Ass., 1865, in which he recommends the utmost fidelity to our national Pharmacopœa. It is an essay full of ideas, which every young pharmacist, in particular, should observe and study.

But, on the other hand, the right of criticism, this solemn right, must not be denied to us, especially in regard to the Pharmacopœa. Each member should feel himself obliged to speak frankly about anything concerning the pharmaceutical business. *Ad astra per aspera.*

ARTICLE XXIV.

RECOVERY FROM BACKWARD CURVATURE OF THE SPINE—WITH REMOVAL OF THE DEFORMITY.

By JULIEN S. SHERMAN, M.D., Chicago.

W. H. B., of Chicago, *æt.* 25 years, applied for treatment in Oct. 1866, stating that a year previous he had fallen from a window, injuring his back to such an extent as to confine him to his bed for several months. He recovered sufficiently to be able to partially attend to his business, but on any unusual exertion, pain would return at the seat of injury and oblige him to desist from his labor. There was slight numbness of the left leg and thigh; pressure upon the shoulders caused pain at the injured spot.

On examination of the back, the spinous process of the last dorsal vertebra showed a decided projection, with all the characteristics of "Potts' disease." This case was also, at the same time, examined by Dr. ANDREWS.

An apparatus, to relieve pressure and separate the bodies of the diseased vertebræ, was applied and worn constantly, day and night. Great relief from suffering was immediately experienced, and at present (May 9, '67) the deformity is scarcely perceptible, and the locality of the disease can be discovered only by a very careful examination. The back is perfectly strong, and no evidence of disease remains. The patient will be required to wear the apparatus a short time longer, when it will be discarded.

The arrest of the deformity and cure, by anchylosis, of the vertebræ in their mal-position, is the general result of treatment in these cases. The disease being essentially one of inflammation of the bone and soft structures of the spinal column, followed by absorption and, frequently, caries, it is greatly aggravated by pressure.

The present case illustrates the fact, that when the weight of the body is effectually and for a sufficient length of time re-

moved, the inflammation will subside and new bone frequently be deposited to take the place of that destroyed, and the normal symmetry of the column be restored. This favorable result cannot be obtained in all cases. To insure such a recovery, there should be no anchylosis in any part of the diseased surfaces, as this would prevent a sufficient separation of the bodies to restore the proper axis of the spine. The case should not be advanced to suppuration or formation of fistulæ, for such a condition would render the application of a proper apparatus difficult. A satisfactory result is much more likely to follow when the inflammation is of a simple character and not complicated with, or dependent on, tubercle.

ARTICLE XXV.

REPORT ON THE SANITARY CONDITION OF THE CITY, AND THE PREVALENCE OF DISEASES, FROM NOV. 1ST, 1866, TO APRIL 1ST, 1867.

BY N. S. DAVIS, M.D., Member of Sanitary Committee.

Read to the Chicago Medical Society, April 27th, 1867.

In my last report an account of the sanitary condition of the city was given up to the 24th of October, 1866.

Up to that date the epidemic, cholera, had continued to prevail moderately; but on the 20th of that month the atmosphere had become cool, cloudy, with some rain. On the 21st there fell copious showers, with lightning, and a severe gale of wind from the west.

The 22d was cool, nearly clear, with a sharp frost at night; and on the 23d sufficient snow fell to whiten the surface of the ground. From this date the prevalence of cholera declined so rapidly, that after the first of November hardly a single new case was to be found in the city. The month of November was cool, for the most part pleasant, and presented no atmospheric or meteorological peculiarities worthy of note. The prevalence of sickness, and the rate of mortality, were but very little above that of the most healthy seasons, while in October the gross

mortality was 1170, of which 673 was from cholera, and 115 from other affections of the bowels; in November the gross mortality was only 382, of which 12 were attributed to cholera, and only 28 to other bowel-affections. The total mortality for the same months in 1865 were: for October 360, and November 299.

During the months of December, January, February, and March, there was an unusual predominance of steady, moderate, cold, and dry weather, with unusually frequent and abundant falls of snow. And there was a correspondingly low ratio of sickness and mortality throughout all these months, as shown by the following figures:—Total mortality for December, 309; January, 299; February, 255; March, 280.

These rates are below the average mortality of the same months for a series of years. From the subsidence of cholera during the last week of October to the first of April, 1867, no disease of an epidemic character has prevailed in our city. We will, therefore, close our labor as a member of your committee on the sanitary condition of the city for the year ending April 1st, 1867, with a complete statement of the monthly mortality for the year 1866:

January,	293
February,	260
March,	254
April,	278
May,	275
June,	319
July,	706
August,	940
September,	739
October,	1170
November,	382
December,	309
Total,	5925

Excess of mortality over 1865, 2262, of which 990 were cholera.

Proceedings of Societies.

AMERICAN MEDICAL ASSOCIATION—EIGHTEENTH ANNUAL SESSION.

This Association met Tuesday, May 7th, at 11 o'clock, A.M., in Hopkin's Hall. For an hour previous the reception room adjoining had been crowded with delegates, presenting their credentials to the Secretary, Dr. Wm. B. Atkinson, of Philadelphia, enrolling their names, and receiving from the Cincinnati Committees such attentions as the occasion has called forth.

The Committee of Arrangements, Dr. John A. Murphy, Chairman, Drs. W. W. Dawson, J. P. Walker, R. R. McIlvaine, W. T. Brown, J. S. Unzicker, and James Graham, presented each delegate or visitor, with a neatly-printed pocket pamphlet with a card-board cover, on the front page of which is printed "American Medical Association, Annual Meeting, Cincinnati, May 7th, 1867. This card will admit Dr. —— ——— to the within named places." On the second page the following: "Places of Public Interest—Court House, City Jail, Young Men's Mercantile Library, Chamber of Commerce, Theological Library, School Library, Mechanics' Institute, Longworth's Wine Cellar, House of Refuge, Protestant Orphan Asylum, Catholic Orphan Asylum, Spring Grove Cemetery, Longview Lunatic Asylum, City Buildings, Greenwood's Foundry, Water Works, Medical College of Ohio, Miami Medical College, Good Samaritan Hospital, Commercial Hospital, Steam Fire Engines."

Next is a copy of Mr. E. Mendenhall's map of the city, stitched in and folded up in good style. Then follow sixteen pages of matter descriptive of the "Places of Public Interest" before mentioned, and numerous others, making a very creditable City Guide, for the use of strangers visiting our town.

The Committee on Entertainment, Dr. David Judkins, Chairman, Drs. C. G. Comegys, W. H. Taylor, C. P. Wilson, T. Carroll, J. S. Dodge, and W. E. Foote, presented each delegate with a ticket to the entertainment, or banquet, at Melodeon Hall, last night, and another to the excursion on the magnificent Louisville mail steamer America on Thursday.

PROCEEDINGS OF THE ASSOCIATION.

At eleven o'clock the President of the Association, Dr.

Henry F. Askew, of Delaware, called the meeting to order. Rev. Dr. Storrs, of this city, offered a prayer.

Dr. John A. Murphy, as Chairman of the Committee of Arrangements, then made the following

ADDRESS OF GREETING.

Mr. President and Gentlemen of the Association:

It is my pleasant duty to greet you on this occasion, and to give you a cordial welcome to this city. I welcome you also on behalf of the profession, and of the citizens at large.

Seventeen years ago this Association honored us with a meeting. Now, as then, we are happy in having the pleasure of greeting representatives from all parts of our beloved country.

It is, then, sir, with feelings of no ordinary pleasure, that I welcome this Association—American by name, national and catholic in spirit—once more to the hospitalities of our city. Its history is bright with the names and labors of the great and good in all parts of our country.

It has harmonized the profession, elevated its tone, stimulated a desire for a higher standard of medical education, and above all, has drawn a line as of fire between the scientific physician and the empyric, by adopting the Code of Ethics.

Its power for good is hardly to be estimated. Its yearly transactions have received high commendation. No man in the profession can be indifferent to it. Much remains to be done to make its labors still more valuable.

Without any power from the State or the National Government, to execute its mandates, it must for the future, as in the past, rely on the union, enthusiasm, and scientific labors of its members.

Having the highest confidence in the capacity of the Association for usefulness, and trusting that its labors may be still more conducive to the advancement of the science and improvement of the art, I bid you God speed in your efforts, and again most heartily welcome you to our city and our homes, as distinguished and honored guests.

MEETINGS OF THE SECTIONS.

Dr. Murphy announced the places of meeting of the different sections of the Association, viz.:

Chemistry and Materia Medica—Medical College of Ohio.

Medical Jurisprudence and Hygiene—Medical College of Ohio.

Psychology—Dental College, College street, between Sixth and Seventh.

Practical Medicine and Obstetrics—Dental College.

Surgery—Medical College of Ohio.

Meteorology, Medical Typography, and Epidemic Diseases—Medical College of Ohio.

ENTERTAINMENTS AND RECEPTIONS.

Dr. Murphy also announced, besides the entertainment last evening, the following

PRIVATE RECEPTIONS.

On Wednesday, May 8th, at 4 P.M., by Mr. and Mrs. George H. Pendleton, at their residence in Clifton. Carriages will leave Hopkins' Hall at 2½ P.M.

On Thursday evening, May 9th, at 8 P.M., by Mr. and Mrs. Larz Anderson, north-east corner of Pike and Third Streets.

On Thursday evening, May 9th, by Hon. C. F. Wilstach, at 8 P.M., No. 559 West Court street.

On Thursday evening, May 9th, at 8 P.M. by Dr. and Mrs. George Mendenhall, No. 197 West Fourth street.

On Thursday, at 12 M., May 9th, steamboat excursion in honor of the American Medical Association, by the City Council of Cincinnati. The steamer America will leave the landing at Vine street, at 12 M. precisely.

The Chief of the Fire Department, Enoch Megrue, Esq., will give an exhibition of the Steam Fire Engines, Thursday morning, at 9 A.M.

Messrs. W. P. & F. P. Anderson, proprietors of Longworth's Wine House, will receive the delegates at 9 A.M., Friday, May 10th, at No 113 East Sixth street.

Excursion to Longview Lunatic Asylum. Reception by the Superintendent, Dr. O. M. Langdon, Friday, May 10th, at 4 P.M.

A special train will leave the Cincinnati, Hamilton & Dayton depot at 3½ P.M., for the Asylum.

THE PRESIDENT'S ADDRESS.

Dr. Askew, the President, then delivered his inaugural address, an hour in length, but pertinent and important as it was comprehensive. He first referred to the origin of the Association, and sketched its usefulness in its history for the past eighteen years, showing how it had elevated and rendered more efficient the medical profession in the United States.

The membership included about three thousand practitioners, scattered in every section of the country, through whose influence the power of the Association was disseminated and exerted among the profession at large. The printing of the reports and papers submitted to the Association, in the volume of annual published proceedings, was instrumental in spreading a knowledge of the facts discovered and experimented upon by the more scientific.

He called attention to the fact that never more than 1100 of these volumes had been distributed, and of late years only 500 volumes, whereas they should be in the hands of every intelligent and progressive physician.

He treated briefly of specialties in medicine. He admitted that the science of medicine, in connection with the endlessly varied forms of disease, was too vast to be comprehended fully and practically by any one mind, and therefore devotion to any one or a few branches of the art of curing disease was not to be condemned; but he suggested that, inasmuch as the special practioner was likely to be unfamiliar with and unskilled in regard to the general symptoms or general causes of special diseases, consultations between the special and general practitioners would be conducive of good results. Neither should entirely ignore the other.

In regard to empyricism, the President said the profession was in some degree responsible for its existence. It had formerly frowned upon all dissemination of medical knowledge among the people, leaving them the prey to pretenders. The teaching of physiology, botany, etc., in our schools, was a step in the right direction, which he hoped would be continued in other departments of medical knowledge.

The subject of a better grading and more thorough instruction in medical colleges was urged upon the consideration of the Association.

The practice of using opium as a stimulant, by respectable people, who condemn the use of intoxicating drinks, was adverted to, and its destructiveness of health and life urged as considerations why physicians should exert their influence to check the evil; that influence might be brought to bear upon our Legislatures, to secure enactments against the sale of the drug, except on prescriptions.

The list of Special Committees were called in order, and such reports as were ready were referred to the appropriate Sections for consideration.

REPORT ON RANK OF MEDICAL MEN IN THE NAVY.

This paper, by Dr. Pinckney, a surgeon in the United States Navy, excited a great deal of interest and approbation. It was a most bitter but dignified protest against the discrimination made between officers of the line (military men purely) and the surgeons in the naval service in regard to title, pay, and official and social privileges. He contended that while men of the medical profession were everywhere recognized as the equals of those in other professions, in the navy they were degraded below the military, inferior in age, in experience, and rank.

He said:

Our service is overgrown with usages which sprung up in the earlier and ruder ages of naval life, and still cling to it with a power and tenacity which almost defy modern enlightenment, progress, and even law. It is probable that the national authorities which organized the existing rank of medical officers intended to confer a more substantial fact than the usages of shipboard life have permitted. Among the usages of the service is that which limits an officer's rights and comforts to the apartment in which he messes, even though his rank actually entitles him to higher privileges and greater comforts than belong to those of an inferior rank who make up the majority of the inmates of that apartment. The steerage is the most humble of those apartments, and is the dwelling-place of the very young, or those of no responsibility. The ward room gathers in it most of the commissioned and some warrant officers, and was originally occupied by none of higher rank than Lieutenant. All its usages and government are still conformed to the scale of that grade.

Now, make a medical officer in name an Admiral, and leave him to be ward room officer, and the title becomes ridiculous. It is sunk below the usages and restrictions originally designed for those of junior years and inferior rank.

There is only one mess which is superior to these restrictions, and that is the mess or messes of the commanding officers, and their associates, who may range in rank from a Lieutenant Commander to an Admiral. Sometimes there are one, sometimes two of those messes. This is very properly left to the will of the Commander-in-Chief, who may choose that he and his Captains may have one or separate establishments. The Assistant Surgeon enters the service with the rank of "Master." That this title may not be misunderstood, it may be necessary to explain that it is the lowest rank in the ward room.

For the incumbent is in modern times generally a graduate of the Naval Academy, awaiting his promotion to lieutenancy. Like the "Master," the Assistant Surgeon, at once becomes a member of the ward room mess, and unless the number of partitioned off sleeping berths contained in the ward room are occupied by his seniors, he may have the good fortune to occupy one of those that are dimly lighted by an air port, six inches in diameter. This space is so restricted, and the separation from the common apartments is so slight, that words in an ordinary voice in another become common property. After further presenting the discriminations against medical men in regard to shipboard accommodations, the Doctor said:

"The general law is that no officer shares in prize money unless his name be bourne upon the books of the vessel making the captures; but the Admiral or Commander-in-Chief has a per centage on all prizes made. The fleet Surgeon as a member of the Commander-in-Chief's staff must be with him in the flag-ship, and as a rule at the post of greatest risk, responsibility, and hazard, consequently he is not likely to have his name borne upon the books of the subordinate vessels making captures, and yet no share of prize money is allowed him."

The report suggests the following as the remedy for these evils:

1. After they have reached the rank of Commander, or are filling the position of Fleet Surgeon, let them be by right, as they often have been by courtesy, members of the cabin mess. If the mess of the Commander-in-Chief be too exalted a social position for the members of your profession who are filling the important position of Fleet Surgeon, then let them be members by right of the mess of the Commander of the ship and the Fleet Captain.

2. An equitable arrangement of prize money, most important in principle, your Committee hope to see effected. It will, however, require future legislation.

In European countries, the doctor said more liberal regulations prevail in regard to naval Surgeons than in democratic America.

The late Admiral Foote, so justly distinguished for his large medical liberality, advocated the highest rank for naval medical officers. An Admiral among the most distinguished in the service, has authorized it to be officially said that he thought the Fleet Surgeon should in our service, as in the French, be a member of the Commander-in-Chief's staff and family. We regard it as opposed to the public interests of the service,

which can never be sacrificed to gross indignity without detriment.

The Committee offered the following resolution:

Resolved, That a Special Committee of five be appointed by the President of the Association, to present this subject before the President of the United States and the Secretary of the Navy, and urge the adoption of the changes proposed.

The resolution was adopted with a universal aye, the report having been received with prolonged applause.

When the list of Special Committees was finished, several volunteer papers were received and referred to the appropriate Sections.

The Treasurer's annual report was read, accepted, and referred.

The delegates from the several States were requested to select one of their number to sit on the Committee on Nominations. The Association then adjourned to 9 o'clock next morning.

SECOND DAY'S PROCEEDINGS.

The Association met this morning with an increased attendance, the hall being completely filled. President Askew was in the chair.

The following named persons were proposed and voted members of the Association by invitation:

Dr. J. Taylor Bradford, Augusta, Ky.

John P. Phister, Maysville, Ky.

Wm. L. Atkins, Geo. H. Whiting, A. B. Duke, M. L. Forsythe, Paul Rankin, of Kentucky.

M. W. Junkins, Galen Hart, E. P. Harrison, of Ohio.

D. R. Greenly, Meadville, Pa.

Fred. Wolf, Concord, Md.

Eugene B. Harrison, Napoleon, Ohio.

B. F. Hart, Marietta, Ohio.

Delegates from the several States presented the following named as Committeemen on nomination of officers:

Vermont—J. N. Stiles.

Massachusetts—H. R. Storer.

Rhode Island—O. Bullock.

Connecticut—B. H. Catlin.

New York—E. Elliott.

New Jersey—Samuel S. Clark.

Pennsylvania—John L. Atlee.

Delaware—H. F. Askew.

Maryland—J. J. Cockrill.
West Virginia—J. C. Hupp.
Ohio—M'Ilwaine.
Kentucky—D. W. Yandell.
Indiana—J. S. Bright.
Illinois—H. A. Johnson.
Michigan—A. B. Palmer.
Iowa—J. C. Blackburn.
Missouri—B. F. Shumard.
Texas—Hurd.
District of Columbia—Johnson Elliott.
United States Navy—N. Pinckney.
United States Army—J. J. Woodward.
Wisconsin—N. Dalton.
Kansas—John Parsons.
California—T. M. Logan.
Tennessee—W. A. Atchison.

The Secretary read a communication from Prof. Alden March, donating to the Association photographs of all the Presidents of the Association, a copy of which he transmitted to the custody of its proper officer for deposit in the archives. He also announced his pleasure to add to the collection in future. The donation was accepted with thanks.

Dr. C. C. Cox read the report of the delegation to the Foreign Medical Societies, in which he gave an interesting resume of the proceedings of the British Medical Association, which met in Chester, England, in August, 1866. Referred to the Committee on Publication.

The President of the Association appointed the following named gentlemen delegates to Foreign Medical Associations for the present year: Dr. B. Fodyce Barker, of New York; Dr. John E. Tyler, Massachusetts; Dr. Thomas C. Brinsmade, Troy, New York.

Dr. H. R. Storer arose to make an explanation. On yesterday he had made some remarks, when the report of Dr. Ray on insanity was called for and no response was made, deprecating the fact that the Superintendents of Insane Asylums held themselves aloof from this Association. His remarks, he thought, had been misunderstood, and taken in a too serious and personal light. He was happy to say that while he was then speaking, Dr. Walker, one of those Superintendents, was on his way to this meeting, with Dr. Ray's report in his pocket. He proposed that Dr. Ray be made a member of the Associa-

tion by invitation, and that his report be made the special order for to-morrow morning.

Dr. Hibberd objected to departing from the rule of referring such papers to appropriate sections, as it would establish a precedent that might consume valuable time of the Association hereafter.

Dr. Walker explained that he had been delayed on his way by a railroad accident. He was surprised and grieved to learn, on arriving here, that an uncalled for assault had been made on this floor, on members of the Association of Superintendents of Insane Asylums. Every member of that Association would take it to himself, and the feeling could not be changed. He repeated the word assault, because the thing had been repeated now for the third time, and he repelled it. No member of that Association would ever again be drawn into this Association to make a personal reply. They had not thought it their duty to connect themselves with this Association, although efforts had been made to get members to come here and join the section on psychology; but if, when they came here, they were to be met with personal attack, this meeting would see the last superintendent of a Hospital for the Insane. He explained that the reason why they did not unite with this organization was, that their duties and interests as hospital superintendents were different from those of ordinary physicians. It was from no want of respect for this Association. They were, however, ready to come in as individuals, and contribute their part in the work of this Association, provided they could be received courteously.

Dr. Gross hoped the report of Dr. Ray would not be referred, but be treated with the courtesy of a hearing in open session.

Dr. Storer again disclaimed any intention to give offense. He had endeavored to satisfy Dr. Walker of this, but he did not succeed.

The report of Dr. Ray was then made the special order for this morning.

The President announced the following Committee, to lay the matter of rank and privileges of Surgeons in the U. S. Navy before the President and Secretary of the Navy.

Drs. N. S. Davis, of Illinois; J. M. Toner, District Columbia; S. D. Gross, Pennsylvania; J. J. Cockrill, Maryland; H. F. Askew, Delaware.

Dr. S. D. Gross read a report on Medical Education, which presented very much the same views as were advanced and inaugurated for practice by the convention of medical professors in session here last week. He had for twenty years been an

advocate for progress in the direction of more thorough attainments, and a more rational mode of imparting instruction, beginning with the elementary and advancing to the more difficult. He condemned entirely the custom of private medical pupilage as worse than useless. The report was ordered to be printed.

Dr. Stille, President of the Medical Teachers' Convention above referred to, presented the action of that body, and asked the co-operation of the Association in carrying out the measures recommended.

Dr. Davis, Chairman of the Committee that had been appointed by this Association to call said convention, made a report, detailing the steps by which the work had been accomplished.

PRIZE ESSAYS.

Dr. F. Donaldson, of Baltimore, from the Committee on Prize Essays, reported that they had received eight essays, all of which had been carefully examined, and after fully weighing the merits of each, two had been agreed upon as being the most meritorious, and they had awarded the prize of $100 each to the following:

First—"An essay on the Causes of Intermittent and Remittent Fever," bearing the motto, "Fortes est veritas."

Second—"On the Treatment of Certain Abnormities of the Uterus," Motto, "Empyricism in Medicine and Surgery is fast giving way to the Rationalism of true Diagnosis."

The sealed envelopes containing the names of the authors were then opened, and the announcement made that the author of the first is Dr. J. D. Black, of Newark, Ohio; of the second, Dr. Montrose A. Pallen, of St. Louis, Mo.

REFORM IN MEDICAL COLLEGES.

Dr. Sayre, of New York, offered the following:

Resolved, That this Association, most heartly approving the whole action of the Convention of Medical Colleges, urge its practical adoption on all the Medical Colleges in the country.

Dr. Post, of New York, wished to offer some change in the course of instruction proposed.

Dr. Davis cut the gentleman off by saying that the College to which he was attached had been invited to be present and take part in the proceedings of that Convention, but had not seen fit to do so. He could at the next meeting of that Convention offer any amendment he chose, but this Association has no power to act in the matter.

Dr. C. A. Lee, of Buffalo, though not present at the Medical

College Convention, approved of all that was done. He had for many years, as a teacher in a Medical College, contemplated just such changes as had been recommended.

The resolution was then adopted.

PRIZE ESSAY MATTERS.

The following resolution, offered yesterday, was taken up:

Resolved, That hereafter the Committee on Prize Essays be requested to withhold the offer of a prize of $100 each, and that the successful essayists receive in lieu thereof a certificate signed by the President and Secretary, and one hundred copies of the essay, at the expense of the Association.

This resolution was suggested by the failure of the receipts of the Association to pay printing expenses.

Dr. Davis made a statement to the effect that if the different sections would conform to the ordinances of the Association, as to proper matter to be referred for publication, the expenses of printing would be greatly reduced, and the prizes could be paid.

Dr. Robbins called attention to an amendment that had been proposed two years ago, requiring all members, whether present or absent, to pay an annual fee of $5. By the adoption of this amendment the Association would have ample funds.

The subject was laid on the table until the amendment could be laid before the Association in proper shape.

PAPERS PRESENTED.

The Secretary presented the following named papers, which were referred to appropriate sections:

1. Observations on the Diseases of the Heart, as seen in Military Service from 1861 to 1865, by M. K. Taylor.

2. Novel Case of Lithotomy, by Dr. Edward Whinney, of Iowa.

3. Report on Ligature of the Subclavian Artery, by Dr. Parker.

4. A communication from Chicago, informing the Association that during 1866, two members of the profession, named, had been expelled from their local Medical Society, for violation of the Code of Ethics.

5. A communication proposing that no person who is not a member and supporter of a local Medical Society, where such a one exists, shall be eligible to membership in the American Medical Association.

This being virtually an amendment to the Constitution, it was laid over for one year.

MEDICAL STATISTICS IN THE ARMY.

Dr. Benjamin Howard, of New York, offered the following preamble and resolutions:

Whereas, There has been issued, and still remains in force, an official order from the Surgeon General of the United States Army prohibiting the communication of any medical or surgicial information, by any medical officer of the United States Army, to any person whatsoever, without special permission from the Medical Bureau at Washington; thus appropriating, as far as the official power of the Surgeon General can compass it, all the valuable experience and statistics of all medical men who have served in the various departments of the United States Army to the exclusive use of the Medical Bureau; and,

Whereas, Under such arbitrary control an official report has already been made tending to create incorrect impressions on scientific questions of great practical importance to the profession and to society; and,

Whereas, It is important to the reputation of all men, who served during the war, that they have the opportunity of correcting such erroneous impressions by an examination of the original records; therefore, be it

Resolved, That it is the opinion of this Association that the monopoly now exercised by the Medical Bureau over the medical and surgicial records of the war, is contrary to the genius and catholic spirit of our profession, and obstructive to the highest interests of science and humanity.

Resolved, That the Secretary of War, or other proper authorities, be requested to direct that the original records of the medical and surgicial history of the war be rendered accessible, on certain regular days of each month, for purposes of scientific investigation, to all medical men who have served as such in the army of the United States.

Dr. Woodward, of the U. S. Army, and occupying some position in the Surgeon General's office, replied curtly to the proposition and speech of Dr. Howard, charging him with ventilating his private griefs in such a way as to reflect upon the honest and faithful performance of duty by Government officers. The simple fact was, that in the routine of duty of the office there were fifty clerks engaged in examining the reports referred to, investigating the claims of officers, soldiers, and widows of the same, for pensions, etc., and in making up the medical report for publication. To admit any portion of the public to these documents would retard the performance of duty toward

these needy claimants. He therefore moved to lay the preamble and resolutions on the table, which was agreed to almost unanimously.

MEDICAL LITERATURE.

Dr. Post, of New York, read a report on Medical Literature, in which he mentioned among other publications of the year, the Report of the New York Board of Health, in regard to Cholera.

Dr. Sayre found fault with the report in that it dignified the production of the New York Board of Health with the name of Medical Literature. He moved to strike out that portion.

The motion was not seconded, and the report was referred for publication.

The Association then adjourned until 9 o'clock to-morrow morning.

ENTERTAINMENT AT HON. GEO. H. PENDLETON'S.

At three o'clock this afternoon the members of the Association, accompanied by their ladies, such as were here, took a ride to the suburban residence of Hon. Geo. H. Pendleton, by invitation of the Committee, who furnished carriages for the purpose. The party numbered about three hundred, and were agreeably entertained.

THIRD DAY'S PROCEEDINGS.

The American Medical Association met again Thursday morning, the hall being full, though not crowded as it was on Wednesday. President Askew called the meeting to order.

Dr. D. H. Storer arose to a question of privilege, namely the honor of the Association. It was in debt, and its first duty was to take measures to relieve its executive officers from their embarrassments. He moved that every member be assessed a tax of $2, to raise the necessary funds.

On motion, he was requested to prepare a subscription paper, and lay upon the table for voluntary subscriptions.

FEMALE PHYSICIANS.

Dr. Atlee, of Philadelphia, offered the following:

Whereas, The subject of female medical education is exciting attention, and regularly educated female physicians have established themselves as practitioners of medicine; and

Whereas, Female Medical Colleges, embracing all branches taught in other colleges, and all the conditions for graduation

exist in the United States for the separate education of females; and

Whereas, It is important that the standard of education, and the observance of the code of medical ethics should be fostered and maintained by this Association; therefore,

Resolved, That the American Medical Association recognizes well educated female physicians by the same laws that govern its own members.

Dr. Bowditch arose to a point of order, and reminded the President that the Association had postponed the order of the day for five minutes to Dr. Storer's question of privilege. He claimed that the five minutes had expired, and he moved to lay the resolutions on the table, which motion prevailed without a negative vote.

REPORT ON INSANITY.

Dr. C. A. Walker, of Boston, read the report of Dr. J. Ray, of Providence, R. I., on insanity. It was an able and interesting paper.

Dr. Chipley, of Lexington, Ky., offered some remarks in vindication of the Superintendents of Insane Asylums, with reference to their connection with this association. He referred to the fact that there were five such Superintendents present, who were a larger proportion of their class than the representatives of any other class of the medical profession present.

The report of Dr. Ray was referred to the Committee of Publication.

NOMINATIONS AND PLACES OF MEETING.

The Committee on nomination of officers, and place of meeting, reported as follows:

Place of meeting, New Orleans.

President—Samuel D. Gross, of Pennsylvania.

Vice-Presidents—A. C. Post, of New York; Jno. H. Atlee, of Pennsylvania; D. W. Yandell, of Kentucky, and H. R. Storer, of Massachusetts.

Permanent Secretary—William B. Atkinson, of Pennsylvania.

Assistant Secretary—J. G. Richardson, of New Orleans.

Treasurer—Casper Wistar, of Pennsylvania.

On motion of Mr. Davis, of Illinois, that portion of the report, naming the place of meeting and officers resident there, was laid on the table. The rest of the report was then adopted.

Dr. Davis remarked that the crisis had arrived, which he had long anticipated, when the matter of eating and drinking, and entertaining the Association had come to involve such an expense, that no invitation had been extended in advance, by resident members of the profession, for the Association to meet in any city, and the Committee had reported New Orleans, without an invitation from any one there. While there was no city in which he would like better to meet on personal accounts, and as a manifestation of reunion with the south, he felt that it would not be right to impose a meeting of the Association on that city. It was embarrassed in every relation of life, like all other places in that direction. It was impoverished, and though they would no doubt receive us with cordial and open hands, it would be wrong to tax them in that way. They could not vie with the liberality and extravagance of Cincinnati; or if they did it would be at a sacrifice we should not admit of. He would give them another year to recover, and an opportunity to invite us. He therefore offered the following:

Resolved, That the next annual meeting of the American Medical Association shall be held in the City of Washington, on the first Tuesday in May, 1868, and every second year thereafter, until otherwise ordered by the Association.

Resolved, That whenever the Association shall meet in the City of Washington, as directed in the above resolution, the Committee of Arrangements be strictly forbidden either to provide themselves, or except provision by others, of any entertainment or excursion whatever.

Dr. Yandell, of Ky., arose, and was urged to take the stand, where he said: "I have listened with pleasure, and derived some new light from the remarks of the gentleman from Chicago. I arise to explain the motives of the Committee in naming New Orleans, and in doing which, I think I shall violate no confidence. When the place of meeting was called for, Dr. Horatio Storer of Mass., proposed New Orleans. The motion was seconded by Dr. Alonzo Palmer of Mich. As one of the few representatives from the South, I chanced to be in the Committee, and was asked my opinion in reference to New Orleans. I confess to you, gentleman, that I never listened to a proposition in all my life which excited such emotions in my breast, as this motion coming from Massachusetts, and seconded by Michigan, to take this great body, of brethren across the crimsoned waste of war, and hold out the hand of fellowship to their brethren in the South. [Cheers.] I confess to you that when Dr. Storer, of New England, and Dr. Palmer, of the

mighty west, moved that we thus extend the hand of brotherhood to the medical profession in the South, I could not restrain my emotions from bringing tears of joy to my eyes.

The first question was whether it would be acceptable to New Orleans. I felt that I had some right to speak for the profession in New Orleans. My excellent father and myself had taught many of them as students in medicine. I had served with them, and was personally acquainted with most of those who had been in the Southern army. I knew they felt as I feel, that when peace came in 1865, we had been united again; in fact, that we had never been divided; that though politicians had separated us by geographical lines, still the great republic of letters was one; that

> "No pent up Utica contracts our powers,
> But the whole boundless continent is ours!"

In the great republic of science all geographical lines should be obliterated. We of the South, and you of the North, the East, and the west, have a common heritage. The ashes of the illustrious Drake lie in your beautiful cemetery here. Have we of the South no claim to, nor interest in his name and his fame? Have you of the North no interest in the long list of great and good men who adorn the profession in the South? No interest in those whose labors have added glory not only to medicine but to the nation?

Hence I said I believed every man in the South, in that land of flowers, of the mocking bird, and of beautiful women, waited but to have your hands extended to them to give you a welcome. [Cheers.] I said to the Committee that New Orleans was poor, that the whole South was poor, but that you would not be less welcome to sit under our vines, and to take fruit from our fig trees; that we could not give you such splendid entertainments as Cincinnati has done; but we could do what was better than eating and better than drinking, we could give you the warm grasp of the hand that you would take with you in memory to your homes. In view of this the Committee honored itself and honored New Orleans by selecting that place for its next meeting.

I see the objection of Dr. Davis, but if he proposes to do no eating and no drinking at the next meeting, New Orleans is a better place than Washington City. [Applause.] If you want to put the Medical Association on low diet, go down there. [Cheers.] But the very reason of all others which should take the Association South of Mason and Dixon's line—if such a

line there be now—is that the Southern people are not able to come to you. They are not here to-day because they could not afford to come. But they would welcome you to their homes. If you do not go to New Orleans, then go to some place within their reach.

Dr. Griswold, of Ohio, moved to substilute Knoxville, Tenn., instead of Washington City.

Dr. Sayre moved to substitute New Orleans, as in the original report. He thought that with Dr. Davis' resolution of restriction as to entertainments, there would be no objection to that place.

Dr. Cox, of Md., indorsed all that had been said by his friend from Kentucky; was proud that one man from the South had expressed himself as standing on the platform of the union of the medical profession. He never supposed there would be any difficulty in reuniting the profession of medicine after the war was over. As to the entertainments of the Association, he was in favor of them, and thought if Dr. Davis' measure was adopted the usefulness and attendance of the Association would be impaired. In England they did far more eating and drinking than was done here, and yet they accomplished a large amount of work.

Dr. Storer, of Boston, said the object of these meetings was to bring as many of the profession together as possible, and it should meet in such places as would accomplish that object. We should not meet where we have not been invited by resident members. That thing had been tried in Boston, and came near failing. The probability was we would be well received; but we ought to wait for a proper invitation. The hour having arrived for the steamboat excursion, the whole subject was laid upon the table.

STEAMBOAT EXCURSION.

At 12 o'clock the Louisville mail steamer America presented a lively appearance. It will be remembered that she is the magnificent two-storied steamboat, built expressly for the Louisville line, her equal is hardly to be found on any waters east or west. Tickets of invitation by the City Council had been distributed liberally among official and prominent men in the city, who, with their ladies, to the number of six or eight hundred, stood on the decks and balconies to welcome the city's guests. The members of the Convention, with their ladies, arriving about half-past 12, and mingling with our people in the gay cabins, or in the genial sunshine on deck, presented the

liveliest throng we have seen for many a day. A band of music entertained the company, if such a thing were needed in such a concourse of intelligent and socially disposed people. The guests cared more for taking a view of the city from the upper decks, as the noble vessel glided down its river shore, and further down to admire the hill-sides, covered with vineyards, and the valleys filled with gardens. At 1 o'clock the band took position in the middle balcony of the cabin, and to a lively march the company assembled around the extensive tables of the steamer, and partook of a grateful lunch.

Dr. G. H. Dougherty, Chairman of the Council Committee on Excursion, made a brief address of welcome to the visitors and assured them of the city's pleasure in having them among us.

The trip was extended only to North Bend and return, without landing, as the vessel had to be back in time to receive her cargo and passengers for departure to Louisville at 5 o'clock. At 3 o'clock the company left the boat, greatly pleased with the brief season of recreation.

FOURTH DAY'S PROCEEDINGS.

The Association met this morning, the fourth day of its session, with about half the usual attendance, President Askew in the chair.

The following named gentlemen were elected members by invitation:—Drs. John Dillard, of Lexington, Ky.; A. J. Larey, Mt. Pleasant, Kansas; S. S. Gray and A. S. Ashton, Piqua, O.; John A. Warder and J. D. Stubbles, Cincinnati, O.; Dr. Marsden, of Quebec, Canada; G. M. Kellogg, of Iowa; Dr. Maloy, of Cincinnati.

PLACE OF NEXT MEETING.

The subject of the next place of meeting was taken up, by Dr. Hammer moving that St. Louis be designated as the next place.

The subject was finally disposed of, by choosing Washington City as the place of meeting, and requiring the Committee of Arrangements to avoid any entertainments that will interfere with the business of the Association or of the Sections.

THE CINCHONA TREE.

On motion of Dr. Atkinson, the President was directed to appoint a committee to memorialize Congress, relative to the cultivation of the cinchona tree in this country.

PAPERS ON CHOLERA.

The Secretary presented a paper upon the Cause and Management of Cholera, by Dr. E. Harris, which was referred to a committee to examine papers designed for publication.

Dr. Wm. Marsden, of Canada, presented a synopsis of an essay on the contagion, infection, and portability of Asiatic cholera, in its relations to quarantine, with a brief history of its origin and cause in Canada, from 1832.

A motion to refer to the Committee on Publication was adopted, but afterward reconsidered, and the paper referred to the Committee on Revision, above authorized.

FURTHER NOMINATIONS.

The Committee on Nominations made the following additional nominations:—

On Prize Essays—Drs. Charles Woodward, W. W. Dawson, S. B. Stevens, Robert Bartholow, P. S. Connor.

Committee of Arrangements—Drs. Grafton Tyler, Wm. P. Johnson, F. Howard, Wm. Murburry, Lewis Mackall, T. F. Mowry, J. M. Toner, of Washington, D.C.

Assistant-Secretary—J. W. H. Lovejoy, of Washington, D.C.

Dr. Samuel Willey was added to the Committee on Necrology, for Minnesota; also, Dr. S. M. Welch, of Texas.

AMENDMENTS TO CONSTITUTION.

On motion of Dr. Cox, the President was directed to appoint a committee of five, to take into consideration such amendments and alterations in the plan of organization of the Association as may tend to remedy existing defects, and contribute to its efficiency—to report in 1868.

COMPENSATION TO THE SECRETARY.

On motion of Dr. Pullen, the Permanent Secretary was authorized to draw an order on the Treasurer, which the President shall sign, for such an amount of money as shall cover his annual expenses in attending the regular meetings of the Association.

RESOLUTIONS OF THANKS.

Dr. Atlee offered the following:—

Resolved, That the thanks of this Association be presented to the Committee of Arrangements, to the corporate authorities of Cincinnati, to his Honor, Mayor Wilstach, Mr. Geo. H. Pen-

dleton, Mr. Larz Anderson, Dr. Geo. Mendenhall, and the citizens generally, for the cordial and generous hospitalities extended to the members of the Association during their present session.

Dr. Levick, of Philadelphia, remarked upon the resolution, saying that no body of men were ever before received with more refined and generous hospitality, and he had been sorry to hear certain remarks deprecating this manifestation of the social element of these meetings. It was an important element in promoting harmony, and, therefore, the dignity of the profession. The resolution was adopted by a unanimous vote.

A resolution of thanks to the following named railroads, for commutation of fares, was also passed:—Baltimore & Ohio, Marietta, Little Miami, Columbus & Cleveland, Cincinnati, Hamilton & Dayton, Dayton & Michigan, Cincinnati, Indianapolis & Lafayette, Covington & Lexington, Chicago & Great Eastern.

Dr. Cox remarked, that in presenting the matter in person to the President of the Baltimore & Ohio, that large-minded and liberal-hearted man said, that if a body of politicians, or almost any other class of men, had applied for such a favor, he would most likely have refused them; but that, regarding us as benefactors of the race, he felt happy to contribute what he could to promote our interests and comforts.

Dr. Hughes, of Iowa, offered a resolution of thanks to the press of this city, for their full and impartial reports of the proceedings of the Association.

UNOFFICINAL MEDICINES.

Dr. Hibbard called up his resolutions on unofficinal medicines, *viz.:*—

Resolved, That the habit of using unofficinal preparations of medicine by physicians, except where there is no officinal preparation that will answer the purpose as well, is unscientific and imprudent, tending to demoralize the therapeutist, and to encourage irregular pharmaceutists and nostrum makers, and should be abandoned.

Resolved, That the profession should not patronize druggists who are engaged in the manufacture of nostrums.

Dr. Hibbard explained that the object of the resolution was to discourage the use of medicines prepared in peculiar and attractive forms, and insidiously introduced throughout the country, that might be genuine and might not, but which, at any rate, tended to confuse the practice.

Dr. Post suggested that instead of the word "unofficinal," the word "secret" be used.

Dr. Levick spoke of these prepared medicines as becoming a great evil. No prescription should be written which could not be put up by any apothecary.

Dr. Cox expressed the opinion, that the profession should not patronize any druggist who manufactured, advertised, or sold quack medicines. Such druggists, while making enemies to the regular profession, taking their patients from them, had no right to approbation or support from those who confined themselves to regular and legitimate prescriptions.

Dr. Howard remarked:—We have a right to regulate our own affairs, but we have no right to interfere with the business of the apothecary, or hinder him from selling what he pleases.

Dr. H. A. Johnson, of Illinois, said:—The question seems to be whether it is or is not professional to use remedies not recognized in the standard pharmacopœia of the profession. It does not become this profession to countenance quackery, but we should be free to use any of those remedies presented by the so-called Eclectics, or Hydropathics, or resort to the use of preparations first advanced by Homœopathists, provided we find them useful in overcoming disease. We should stand on the broad platform of science; and no matter from what source remedies come, whether presented by a school of medicine called quackery, or through channels which we are accustomed to call legitimate, we should accept what proves to be useful. In the hands of scientific men they will become legitimate. And these preparations and elixirs that have been referred to, they are not secret remedies; we know what they are, and what their value, and I must feel at liberty to use them, get them where I can.

After further discussion, the resolutions were referred to the Committee on By-Laws.

FEMALE PHYSICIANS.

Dr. Atlee called from the table his preamble and resolutions, proposing to recognize female physicians by the same rules and limitations as other physicians. The vote on taking them from the table was 57 ayes to 52 nays.

As there was no time for satisfactory discussion, Dr. Atlee moved the previous question, but it was not sustained.

Dr. Pallen, of St. Louis, said:—"At home, I am considered a friend of the ladies, and nothing would give me greater pleasure than to advocate their claims, where it could be done legit-

imately. But in Europe, Austria, France, and Prussia, the practice of medicine and obstetrics by females has proved a total failure. It is contrary to the spirit of our profession to have anybody connected with it except men, and men of reason. Nature has so ordained the female that, at certain periods, she is absolutely unfitted to do anything, consequently, could not attend to the legitimate duties of the physician. Another serious objection—no person can practice medicine or surgery without a knowledge of pathological anatomy, and no woman having sufficient delicacy to enter the sick chamber, would enter the dissecting room to obtain such knowledge. Imagine a lady, with her style of dress, flitting around in the charnel house, or with microscopes diving into cancer cells. Pass such a resolution as this, and a thousand women about the country, practicing specialties connected with the female organization, will demand recognition at our hands, and claim authority for their business pretensions. I think the resolution should be voted down, because it is contrary to the laws of nature for women to practice medicine.

Dr. Davis stated that at this late period of the session there was not time to enter upon any general discussion of the subject before them, and, consequently, he moved to refer the preamble and resolution offered by Dr. Atlee to the Committee on Ethics.

Dr. Bowditch advocated the adoption of the resolution.

But the motion to refer to the Committee on Ethics was carried by a large majority.

THE CHRONIC INSANE.

Dr. Lee, of New York, presented the following:—

Resolved, That providing for the poor chronic insane in the jails and almshouses of our country, as at present practiced in nearly all the States of the Union, is a gross violation of the laws of humanity, and contrary to the divine injunction of doing to others as we would be done by.

Resolved, That when the regular hospitals for the insane of a State are insufficient to accommodate both acute and chronic cases that are sent to them, this Association would strongly recommend the procurement of a suitable amount of land in the vicinity, and the erection of convenient, well-planned, and well-ventilated, but comparatively inexpensive buildings, in connection with and under the same general supervisor as the hospitals themselves, where those who are able to labor, and would be benefited by light, regulated employment, may be suitably accommodated and properly cared for.

Resolved, That the example of Mass. in establishing asylums for the accommodation and humane treatment of the chronic insane, is worthy of all praise and imitation, and in the opinion of this Association, such institutions, if rightly inaugurated and judiciously carried on, will be a benefit to the State in an economical point of view, will raise the character of the State hospitals, and will greatly subserve the interests of the insane generally.

Resolved, That as the present insane hospitals are capable of accommodating but a small proportion of the 40,000 of the insane of the United States, and as almshouse and jail provision is not adapted to their proper care and treatment, this Association would recommend to the proper State authorities to make such further provision in the direction above indicated, as may tend to the amelioration of their condition, if not the restoration of their rational and moral faculties.

They were referred to the following committee, *viz.*:—Drs. C. A. Lee, New York; Gundry, of Ohio; John Fonerton Walker, of Massachusetts; and Chipley, of Kentucky.

The Association then adjourned, *sine die*.

CONVENTION OF TEACHERS OF MEDICAL COLLEGES IN THE UNITED STATES.

In pursuance of a call of a Committee appointed by the American Medical Association, at its last session, held in Baltimore, May 3d, 1866, delegates from most of the medical institutions of the country met Friday morning, May 3d, at 10 o'clock in the forenoon, in the faculty-room of the Medical College of Ohio.

Professor Davis, of Chicago, Chairman of said Committee, called the meeting to order, and, after stating its object, proposed with a view to facilitate a permanent organization, the appointment of a temporary Chairman and Secretary. This proposition being accepted, Prof. A. Stillé, of Philadelphia, was elected temporary Chairman, and Prof. G. C. E. Weber, of Cleveland, Ohio, Secretary.

Prof. Davis, of Chicago, Prof. Donaldson, of Baltimore, and Prof. Blackman, of Cincinnati, were appointed a Committee on Credentials. The following-named gentlemen were approved as delegates from their respective colleges:—

A Stillé, from the University of Pennsylvania; S. D. Gross, from Jefferson Medical College, Philadelphia; F. Donaldson, from the University of Maryland, Baltimore; F. Howard, from Georgetown Medical College, Washington City; James M. Holloway, from University of Louisville, Ky.; A. Hammer and A. J. Steele, from Humboldt Medical College, St. Louis; J. N. McDowell, from Missouri Medical College, St. Louis; J. C. Hughes and M. K. Taylor, from the Medical Department of Iowa University, Keokuk; W. H. Byford and N. S. Davis, from Chicago Medical College, Chicago; A. B. Palmer, from the Medical Department of University of Michigan, Ann Arbor; Alden March, from Albany Medical College, N.Y.; A. B. Palmer, from Berkshire Medical College, Pittsfield, Mass.; G. C. E. Weber, from Charity Hospital Medical College, Cleveland; Francis Carter, from Starling Medical College, Columbus; Geo. C. Blackman and G. C. Comegys, from Medical College of Ohio; Geo. Mendenhall and E. B. Stevens, from Miami Medical College, Cincinnati; B. L. Lawson and — Read, from Cincinnati College of Medicine; and T. M. Logan, from Tolland Medical College, San Francisco, Cal.

Prof. Stillé, of Philadelphia, was chosen permanent Chairman, and Prof. Weber, of Cleveland, Secretary.

Profs. Holloway, of Louisville; Davis, of Chicago; Blackman, of Cincinnati; and March, of Albany, were appointed a committee to report on the order of the different subjects which were to occupy the attention of the Convention.

After which the Convention adjourned to 4 o'clock P.M.

FIRST DAY—*Afternoon Session.*

The Convention was called to order at 4 o'clock P.M.

Dr. N. S. Davis, from the committee to present a proper order of business, reported the following distinct propositions for the consideration of the Convention:—

"1. That every student applying for matriculation in a Medical College, shall be required to show, either by satisfactory certificates, or by a direct examination by a committee of the faculty, that he possesses a thorough knowledge of the common English branches of education, including the first series of mathematics and the natural sciences, and the certificates presented, or the results of the examinations thus required, be regularly filed, as a part of the records of each Medical College.

"2. That every medical student be required to study not only three full years, but also to attend three regular annua[1]

courses of medical college instruction before being admitted to an examination for the degree of Doctor of Medicine.

"3. That the *minimum* duration of a regular annual lecture term, or course of medical college instruction, shall be five calendar months.

"4. That every medical college shall embrace in its curriculum at least *thirteen* professorships, including substantially the following branches, namely: Descriptive Anatomy, Physiology and Histology, Inorganic Chemistry, Materia Medica, Organic Chemistry and Toxicology, General Pathology and Public Hygiene, Surgical Anatomy and Operations of Surgery, Medical Jurisprudence, Practice of Medicine, Practice of Surgery, Obstetrics and Diseases of Women, Clinical Medicine and Clinical Surgery. That these several branches shall be divided into three groups or series, corresponding with the three years required for medical study. The first, or freshman series, shall embrace Descriptive Anatomy, Physiology and Histology, Inorganic Chemistry, and Materia Medica. To these, the attention of the student shall be mainly restricted during the first year of his studies, and on them he shall be thoroughly examined by the proper members of the faculty at the close of his first course of medical college instruction, and receive a certificate indicating the degree of his progress. The second, or junior series, shall embrace Organic Chemistry and Toxicology, General Pathology, Public Hygiene, Surgical Anatomy and Operations of Surgery, and Medical Jurisprudence. To these, the attention of the medical student shall be directed during the second year of his studies, and on them he shall be examined at the close of his second course of medical college instruction, the same as after the first. The third, or senior series, shall embrace Practical Medicine, Practical Surgery, Obstetrics and Diseases of Women, with Clinical Medicine and Clinical Surgery in a hospital. These shall occupy the attention of the student during the third year of his medical studies, and at the close of the third course of medical college attendance, he shall undergo a general examination in all the departments, as a prerequisite for the degree of Doctor of Medicine.

"The instruction in the three series of branches is to be given simultaneously, and to continue throughout the whole of each annual college term; each student attending the lectures on such branches as belong to his period of progress in study, in the same manner as the Sophomore, Junior, and Senior classes each pursue their respective studies simultaneously throughout the collegiate year, in all our literary colleges.

"5. That the practice of selling individual tickets by members of medical college faculties should be abolished, and, in place of it, each stndent should be charged a specified sum for each annual course of medical college instruction; the sum being the same for each of the three courses before graduating; and any student or practitioner who has attended three full courses in any one college, shall be entitled to attend any subsequent course or courses in that college gratuitously. The fees paid for each annual course of college instruction should be paid to the Treasurer of the college, and subsequently distributed to each member of the faculty, at such time and in such proportion as the Trustees and Faculty of each college shall determine.

"6. That inasmuch as the maintenance of an efficient medical college requires a large expenditure of money annually, and inasmuch as there is no reasonable hope of adequate endowments from the several State governments, the exaction of a just and reasonable annual lecture fee is a necessity with which all medical colleges should comply, and that $105 should be the minimum fee for each regular annual course of instruction in any medical college in the United States."

The first proposition was taken up and discussed by Professors Davis, Gross, Comegys, McDowell, Hammer, Taylor, and Palmer, and with an amendment, so as to strike out the words "natural sciences," and add "sufficient knowledge of Latin and Greek to understand the technical terms of the profession," it was adopted.

The Convention then adjourned, to meet at 9½ o'clock Saturday morning.

SECOND DAY—*Morning Session.*

On Saturday, 4th inst., the Convention was called to order by the Chairman, Professor Stillé. The minutes of the preceding session were read and adopted. The Chair then announced that the next business in order was the discussion of Section 2 of the Report of the Committee on the order of Business, which reads as follows:—

"That every medical student be required to study three full years, including three regular annual courses of medical college instruction, before being admitted to an examination for the degree of Doctor of Medicine."

Professor Gross, of Philadelphia, moved to amend, so as to insert "four" after study, instead of "three."

Remarks were made by Professors Gross; Hammer, of St.

Louis; Davis, of Chicago; Palmer, of Michigan; and McDowell of St. Louis.

The Convention then suspended the rules, for the purpose of allowing Professor Davis to introduce the following resolution:

"*Resolved*, That on all distinct propositions under the consideration of this Convention, no member shall speak more than once, until all other members have spoken who wish to speak." Adopted.

Prof. F. Howard, of Washington City, moved to amend, by inserting "not less than three years," instead of "three full years." Lost.

Prof. Gross' amendment was then adopted.

On motion of Prof. Gross, the entire section, as amended, was unanimously adopted.

Prof. Hammar moved to take up for consideration Section 4, prior to Section 3. Lost.

Section 3 was read, viz., "That the minimum duration of a regular annual lecture term or course of medical college instruction shall be five calendar months."

Prof. Gross moved to amend by inserting "six" in place of "five calendar months." Carried.

Section 3, as amended, was then adopted.

Section 4, being next in order, came up for discussion. Prof. Gross moved to discuss the different parts of this section separately. First, that relating to the different branches recommended to be taught in the schools. Second, the number of professorships. Third, the division of studies. Adopted.

Prof. Hammar moved to add to the different branches, Natural Philosophy and Pathological Anatomy.

Prof. Donaldson, of Baltimore, moved to act upon these propositions separately.

The vote on the addition of Natural Philosophy being taken, it was rejected.

The amendment adding Pathological Anatomy was carried.

Prof. Byford, of Chicago, moved to amend by including Diseases of Children. Carried.

On motion, the Convention then adjourned to meet at 4 o'clock, P.M.

SECOND DAY—*Afternoon Session.*.

The meeting having been called to order by the chairman, the second part of Section 4 was called up for discussion.

Prof. Gross moved to amend by inserting after the words "following branches," "to be taught by not less than nine professors." Carried.

Remarks were made by Professors Gross, Palmer, Davis, Hammar, Howard, and Taylor.

The third part of Section 4, referring to the division of studies, was next considered.

Prof. Davis moved to amend, by making that part read as follows:—

"That these several branches shall be divided into three groups or series, corresponding with the three courses of medical college instruction required.

The first, or Freshman series, shall embrace Descriptive Anatomy and Practical Dissections, Physiology and Histology, Inorganic Chemistry, Materia Medica and Therapeutics.

"To these, the attention of the student shall be mainly restricted during his first course of medical college instruction, and in these he shall submit to a thorough examination by the proper members of the Faculty at its close, and receive a certificate indicating the degree of his progress.

"The second, or Junior series, shall embrace organic Chemistry and Toxicology, General Pathology, Pathological Anatomy and Public Hygiene, Surgical Anatomy and Operations of Surgery, and Medical Jurisprudence. To these, the attention of the medical student shall be directed during his second course of medical college instruction, and in them he shall be examined at the close of his second course, in the same manner as after the first.

"The third, or Senior series, shall embrace Practical Medicine, Practical Surgery, Obstetrics, and Diseases peculiar to Women and Children; with Clinical Medicine and Clinical Surgery in a hospital. These shall occupy the attention of the student during his third course of medical college instruction, and at its close he shall be eligible to a general examination on all the branches, as a prerequisite for the degree of Doctor of Medicine. The instruction in the three series of branches is to be given simultaneously, and to continue throughout the whole of each annual college term; each student attending the lectures on such branches as belong to his period of progress in study, in the same manner as the Sophomore, Junior, and Senior classes each pursue their respective studies simultaneously throughout the collegiate year, in all our literary colleges."

After a prolonged debate, in which Professors Gross, Palmer, Blackman, Davis, and Taylor participated, the motion of Prof. Davis prevailed.

Prof. Davis then moved the adoption of the entire section as amended. Carried.

Section 5 was then taken up, and, upon motion of Professor Palmer, was laid on the table.

Section 6, being in order, was read, but, on motion of Prof. Gross, was also laid upon the table until Monday morning, 6th inst.

On motion of Prof. Davis, the Convention then adjourned to meet at 10 A.M., on Monday morning.

THIRD DAY—*Morning Session.*

The meeting was called to order by Prof. Stillé, at 10 o'clock A.M. The minutes of the previous session were read and approved.

The Committee on Credentials announced Dr. T. M. Logan, of Sacramento, California, as an authorized delegate from the Faculty of the Toland Medical College of San Francisco.

Prof. Gross moved to reconsider parts of Section 4, relating to the branches to be taught in medical colleges.

Prof. Hammar moved to suspend the rules for that purpose. Carried.

Prof. Gross moved to amend part 1st, Section 4, by inserting the words "Medical Ethics" after the words "Medical Jurisprudence.

Prof. Palmer moved the adoption of the amendment. Carried.

Prof. Comegys moved the reconsideration of Section 1.

After suspension of the rules, this motion was adopted.

Prof. Comegys moved to amend Section 1, by inserting "Elements of Natural Sciences" after the word "Mathematics." Carried.

Prof. Hammar moved the adoption of the whole section as amended. Carried.

Section 6 was then considered.

On motion of Prof. Donaldson, it was laid on the table.

Prof. Palmer then introduced the following resolution:—

Resolved, That every medical college should immediately adopt some effectual method of ascertaining the actual attendance of students upon its lectures and other exercises, and at the close of each session or of the attendance of the student a certificate, specifying the time and the courses of instruction actually attended, should be given; and such certificate only should be received by other colleges as evidence of such attendance."

The resolution was adopted.

Prof. Davis moved the adoption of all the sections as amended.

Prof. Gross moved to transmit a copy of these sections, as adopted by this Convention, certified to by its officers, to the American Medical Association, at its next session.

Prof. Davis then introduced the following resolution:—

"*Resolved*, That a committee of five be appointed by the President, whose duty it shall be to present the several propositions adopted by the Convention to the trustees and faculties of all the medical colleges in this country, and solicit their definite action thereon, with a view to the early and simultaneous practical adoption of the same throughout the whole country, And that the same committee be authorized to call another convention, whenever deemed advisable."

The Chair appointed the following gentlemen that committee: Profs. Davis, of Chicago; Donaldson, of Baltimore; Gross, of Philadelphia; March, of Albany; Blackman, of Cincinnati.

The Chairman then introduced Dr. Vattier, President of the Cincinnati Academy of Medicine, who invited the members of the Convention to be present at the opening of the Academy in the evening.

Prof. March moved to accept the invitation. Carried.

On motion of Prof. Davis, a vote of thanks was returned to the Chairman and Secretary of the Convention, for the efficiency with which they have discharged their duties, and to the Faculty of the Ohio Medical College for the use of their hall.

The President returned his thanks to the members of the Convention, in a neat and appropriate speech.

Prof. Stevens moved that a formal written thesis on some professional topic shall still be regarded as one of the indispensible requirements of the doctorate.

Remarks were made by Professors Comegys, Stevens, and Donaldson.

Prof. Davis then rose, simply to suggest whether there was not some danger of entering upon the consideration of propositions involving details that might unnecessarily complicate the great leading object for which we have been laboring. Whether the time-honored and universal custom of requiring the medical students to write a thesis should be insisted on or not, would have but little bearing on the great principles involved in the revision of our system of medical education. If the standard of preliminary education which we have here adopted should be carried into effect, it would remove one of the objects for which the writing of a thesis was originally demanded. Yet, he said, it was desirable to retain the practice, if for no other purpose than to encourage every student in the habit of expressing his thoughts on paper. But the great and all-important object of this Convention was simply to place the system of medical education in this country upon sound educational principles, by

erecting a standard of preliminary education, by increasing the period of study, by adding to the college courses, and by determining a rational order of study. This we have now done, so far as this Convention is concerned, by the harmonious adoption of the five propositions already passed upon. And he earnestly suggested whether we had not better stop here, and devote the remainder of our time to the work of devising the most efficient means to secure the adoption and simultaneous practical execution of the provisions already agreed upon by all the colleges of our country, and leave all minor matters of detail to be determined as time and circumstances should indicate in the future.

Thereupon, on motion of Prof. Hammar, the Convention adjourned, subject to the call of the Committee.

The following is a correct copy of the several propositions as finally adopted by the *unanimous* vote of the Convention;—

"*Resolved:*—

1st. That every student applying for matriculation in a Medical College, shall be required to show, either by satisfactory certificate, or by a direct examination by a Committee of the Faculty, that he possesses a thorough knowledge of the common English branches of education, including the first series of mathematics, the elements of natural sciences, and a sufficient knowledge of Latin and Greek to understand the technical terms of the profession; and that the certificate presented, or the result of the examinations thus required, be regularly filed as a part of the records of each Medical College.

2d. That every Medical Student shall be required to study four full years, including three regular annual courses of Medical College instruction, before being admitted to an examination for the degree of Doctor of Medicine.

3d. That the minimum duration of a regular annual lecture term, or course of Medical College instruction, shall be six calendar months.

4th. That every Medical College shall embrace in its curriculum the following branches, to be taught by not less than nine Professors, namely:—Descriptive anatomy, including dissections; physiology and histology; inorganic chemistry, materia medica, organic chemistry, and toxicology; general pathology, therapeutics, pathological anatomy, and public hygiene; surgical anatomy and operations of surgery; medical jurisprudence and medical ethics; practice of medicine, practice of surgery, obstetrics, and diseases of women and children; clini-

cal medicine and clinical surgery. And that these several branches shall be divided into three groups or series, corresponding with the three courses of Medical College instruction required.

The first, or *Freshman Series*, shall embrace descriptive anatomy and practical bisections; physiology and histology; inorganic chemistry, and materia medica. To these, the attention of the student shall be mainly restricted during his first course of Medical College instruction, and in these he shall submit to a thorough examination, by the proper members of the Faculty, at its close, and receive a certificate indicating the degree of his progress.

The second, or *Junior Series*, shall embrace organic chemistry and toxicology; general pathology, pathological anatomy, therapeutics, and public hygiene; surgical anatomy and operations of surgery; medical jurisprudence and medical ethics. To these, the attention of the medical student shall be directed during his second course of Medical College instruction, and in them he shall be examined, at the close of his second course, in the same manner as after the first.

The third, or *Senior Series*, shall embrace practical medicine; practical surgery; obstetrics, and diseases peculiar to women and children; with clinical medicine and clinical surgery in a hospital. These shall occupy the attention of the student during his third course of College instruction, and at its close he shall be eligible to a general examination for the degree of Doctor of Medicine.

The instruction in the three series is to be given simultaneously, and to continue throughout the whole of each annual College term; each student attending the lectures on such branches as belong to his period of progress in study, in the same manner as the sophomore, junior, and senior classes, each pursue their studies simultaneously throughout the collegiate year, in all our Literary Colleges.

5th. That every Medical College should immediately adopt same effectual method of ascertaining the actual attendance of students, upon its lectures and other exercises, and at the close of each session, of the attendance of the student, a certificate, specifying the time and the courses of instruction actually attended, should be given, and such certificate only should be received by other Colleges as evidence of such attendance.

6th. That a committee of five be appointed by the President, whose duty it shall be to present the several propositions adopted by this Convention, to the Trustees and Faculties of all

he Medical Colleges in this country, and solicit their definite ction thereon, with a view to the early and simultaneous pracical adoption of the same throughout the whole country. And hat the same committee be authorized to call another convenion whenever deemed advisable."

PROCEEDINGS OF MORGAN COUNTY MEDICAL SOCIETY.

The Morgan County Medical Society held its regular monthly meeting in Freman's Hall, in Jacksonville, on Monday, May 9th.

The meeting was called to order at 11 o'clock A.M., by the president, Dr. R. E. McVey, when the minutes of the last meeting, as printed in the *Jacksonville Journal*, were read and adopted.

The Examining Committee recommended the names of Dr. O. Long, of Jacksonville, Dr. G. A. Wilson, of Virginia, and Dr. J. H. Brown, of Waverly, for membership, when they were unanimously elected.

Dr. J. Rhodes, of Jacksonville, was elected an honorary member of the Society.

Dr. D. A. Logan, of Newmanville, Cass County, J. G. Cox, of Jacksonville, T. N. Stewart, of Exeter, and E. F. Baker, of Alexander, were nominated for membership.

The following notice was passed:

That the corporate members of the Society present be assessed the sum of one dollar and fifty cents for the expense incurred in the Society dinner—and if the amount raised by said assessment exceed the expense thus incurred, the balance shall remain in the hands of the Treasurer, subject to the order of the Finance Committee.

The Society then proceeded by ballot to elect its officers for the ensuing year, with the following result:

President—Dr. Henry Jones.

Vice-President—Dr. S. Weagley.

Secretary—Dr. C. T. Wilbur.

Treasurer—Dr. John W. Craig.

In electing the Examining Committee, it was moved by Dr. Prince that the five individuals who received the highest number of votes upon the first ballot should be declared elected.

Drs. Prince, W. S. Edgar, Long, Askew, and Fisher, were elected as the Examining Committee for the ensuing year.

Drs. Prince, Edgar H. Jones, Wilbur, and Craig, were elected delegates to the State Medical Convention.

The following report of the Secretary for the last year was then read:

GENTLEMEN: Custom makes it incumbent upon me to present a report at the expiration of my term of office. By custom I do not refer to the action of a long line of predecessors, but to what is done by all dignified bodies, like ours, which have Secretaries.

I ought, but shall not be able, to give an exact statistical report of the attendance upon our meetings. Also a volume or two of praise to those who have been punctual and faithful to the Society, and who have labored from the first to make the exercises entertaining and instructive, and a sound lecture to those whose short-comings have been long suffered.

Fourteen meetings have been held during the past year, with a very good average attendance. There are now connected with the Society, thirty-five corporate members, and thirteen honorary members.

Four of the corporate and four of the honorary members reside out of the county.

During the year we have had seven essays read upon the subjects, by the individuals and in the order hereinafter mentioned:

On Cholera, by Dr. H. Jones. Agency of mercury in cholera, diarrhœa, and similar diseases, Dr. D. Prince. On idiocy and its relation to the medical profession, Dr. C. T. Wilbur. On ergot of rye, Dr. W. S. Edgar. On phthisis and its relation with scrofula, Dr. R. E. McVey. On puerperal fever, Dr. D. Prince. On the Calabar bean, Dr. R. Malone.

Our meetings have been enlivened by some very spirited and interesting conversations on the following topics: Ventillation, or the means of changing the viatated air of the sick-chamber. Osteo myelitis. Injections by hydrostatic pressure in acute dysentery. A case of malpractice, introduced by Dr. Prince. Tartar emetic in uterine inertia. Nomenclature and classification of febrile diseases, introduced by Dr. H. Jones. Ergot. Local anesthesia. Introduction of mecurials into the materia medica. Classification and treatment of cutaneous diseases, introduced by W. S. Edgar. Impurities of castor oil, introduced by Dr. Warrinner. Production of insensibility by cold ingeniously applied, introduced by Dr. G. V. Black, who exhibited apparatus. Cerebro spinal meningitis, introduced by Dr. J. P. Johnson.

Some very remarkable and interesting cases occurring in the practice of the various members of the Society have been mentioned and commented upon, of which we cannot in this report make further mention.

A fee bill for the mutual benefit of the members of the Society, to serve as a general guide, was framed and adopted at the meeting held in December, 1866. The reports of the Society, from month to month, have been published in the *Jacksonville Journal*, and several of these reports have been copied into the *Chicago Medical Journal* and EXAMINER—in fact, every report has been published that has been sent to these medical journals by the Secretary. We have in store for the coming year, essays on various topics, promised by Drs. Prince, Henry Jones, H. K. Jones, W. S. Edgar, J. W. Craig, and others, and our meetings, it is hoped, will be still better attended than during the past year. It is also hoped that interesting and rare cases may be reported, and that there may be no lack of topics for conversation for each monthly meeting of the coming year.

Our meetings have been characterized by uniform courtesy of demeanor, one to another, and there has been a complete absence of personalities in our discussions and of any disposition to carry out the common opinion of the public that doctors

never agree. On the contrary, the most perfect harmony of action and interchange of good nature have prevailed. In short, our meetings have been such as to cause feelings of pride that we are so generally amiable and fraternizing. There have been no symptoms of intolerance manifested toward the transitory Lighthills, O'Learys, and Finns, and even stationary charlatans have been permitted to bleed their dear public, *ad libitum*,

"With no one nigh to hinder!"

In conclusion, I would respectfully return my thanks for the honor conferred upon me, and the charitable manner in which the imperfect performance of the functions of my office have been received.

The foregoing report is respectfully submitted.

C. T. WILBER, M.D., Secretary.

The Treasurer's report was next read, and both reports were accepted by the society.

Dr. McVey then delivered a spirited and eloquent valedictory address, after which he vacated the Presidential chair, and the newly elected president, Dr. Henry Jones, was conducted to it. Dr. Jones briefly remarked that he was completely unprepared for any remarks, as the result of the election was entirely unexpected by him.

A resolution of thanks for the able manner in which all the duties had been performed by the officers of the last year, was unanimously carried.

The Society adjourned at half-past 1 o'clock to meet at the Dunlap House at 2 o'clock P.M.

At 2 o'clock P.M., the members of the Society assembled at the Dunlap House—where an excellent dinner awaited them. After the invocation of the Divine blessing, by Dr. Johnson, all proceeded to discuss the viands so bountifully spread out before them, and there seemed to be no sign or symptom of impared digestive functions among the whole fraternity.

The members were then called to order by the President, when the Secretary announced the following toast:

"The early practice of Jacksonville," and called upon Dr. Henry Jones to respond.

The doctor then opened the "feast of reason" with the following remarks:

The early practice of medicine in Jacksonville was similar of course to medical life in other new settlements, characterized by hard work, low charges, long credits, and payment in the end, not always, or generally in legal tenders.

Hard work—for in those early days practitioners were nearly all gathered in the larger villages, and the doctor's circuit, if not as broad as the Methodist preacher's, was no narrow one, requiring long rides by night and day, and frequently, long, protracted absences from home; and this work must be performed on horseback, for the doctor's duty led him over routes impracticable to gig or buggy—and any attempt to employ wheels would have ended in sad discomfiture. Just such a life as is now being led in other localities, whose conditions are at present, what ours were some forty years ago.

Yet, in the retrospect of these early times and ways, there is something by no means unpleasant. If the country was young, so was the doctor, for nearly all the practitioners then were young men, and labor was easily bourne, which, I suspect, some of us would shrink a little from encountering now.

And to us from the older States there was something fresh and piquant, and far from unenjoyable in the rough life of the times of which I speak; and I shall not easily forget the warm hospitality, the kindness, and attention to the doctor's comfort and well-being, so continually manifested by my earlier employers in my country rounds. This was characteristic of the time.

We had few classes of doctors then. No homœopathy or hydropathy. No itinerant specialists. No wonderful vagrant curers of sore eyes, or ears, or throats, or other "ills that flesh is heir to."

Besides regular practice, we had nothing but Thompsonianism, or steam practice, and this high pressure affair soon collapsed. If still in existence, it is only probably to be found in operation on some far away frontier.

On the heels of the Thompsonians came the "root doctors,"

also now, I believe, obsolete. These gentlemen called themselves *eclectics*, rather an attractive designation, as it seemed to present the idea that in them was to be found the collected wisdom of all systems carefully separated from what was worthless or erroneous. But the eclecticism of the root doctors consisted in the employment of a few articles from the vegetable kingdom to the exclusion of all other remedial means. The community did not seem to think that they had the root of the matter in them, and they passed away. There *is* a wise eclecticism (not talked about, but employed) which leads the intelligent practitioner to avail himself of whatever of value may be found in any system, and something of value may be found in those most heterodox, and, in general, most absurd.

There is another form of eclecticism developed in later days, in which the practitioner selects his *methodus medendi*, at different times, and in different instances from all systems, no matter how antagonistic to each other, to meet the fantasies or prejudices of the constituency to which he ministers. This, which in another profession, would be like discoursing, in order to meet the requisitions of different creeds, at one time from the Bible, at another from the Koran, and at another from the Hindo Shasters, is confined, I trust, to a very select and limited few. I will not occupy your time in relating incidents illustrating medical life in Morgan County in days long past, all of you probably, even at this day, have an occasional experience of what, in other days formed our daily life; and enough of hard work and rough work still survives the changes of the intervening years.

I have a pleasant remembrance of my early associates in practice in this county. They were intelligent, educated men, and entered with good will and energy into the life-work which they had chosen. But one of that number remains in the field, and he is here on this occasion. Some are dead, others have removed to other scenes. I should be glad to say a word in regard to them, and others who, like them, have occupied the position of pioneer doctors in the new settlements of the country. I hesitate, lest I should be thought to include myself

in the number of those to whom I wish to pay a tribute as sincere as well deserved. If you will exonorate me from the imputation of such inexcusable egotism and vanity, for I detach myself from the number of those of whom I wish to speak, I will go on. What I wish to say is this—that I cannot look on the lives of these early practitioners without feelings of emphatic admiration, and with a strong conviction that their humble, obscure, laborious, self-sacrificing, and useful lives deserve a higher appreciation than it will ever be their lot to receive. With great labor, with no prospect of fame, with little expectation of more than a bare support; with much self-denial, and often with much difficulty from year to year "in making the two ends meet," their best services were cheerfully rendered; and to many a remote and lonely cabin, the homely-garbed doctor, plodding patiently on from dwelling to dwelling, was, if not in aspect, in reality, an angel of mercy and a ministering spirit. Whatever his reward, it certainly was not of this world, but his memory will be green in the hearts of some who were subjects of his care. All laud and honor, say I, to these humble workers in this noble calling, and let them not be forgotten when they are seen no more.

In response to the toast, "Be short," Dr. David Prince remarked: "The whys and wherefores of the above sentiment I am really at a loss to understand. Physically I am neither short nor long. I am not aware that I am even accused of being "short" in professional or pecuniary relations to society. I must, therefore, pause, as I can conceive of no adequate reason why I should be called upon to reply to this sentiment.

[The effect of the doctor's sentiment was a very happy one, as no one dared to be very prosy.]

Dr. R. E. McVey was called upon to narrate the "pleasures of a country practice," which he did in a very brief manner.

In response to the toast "The Morgan County Medical Society," Dr. W. S. Edgar made the following remarks:

If nature holds no anniversaries, she marks time by the revolution of the seasons, and we are reminded by the recurrence of spring-time of the organization of our Society one year ago.

In adopting a name, the friends were not unmindful of the fact that Morgan County had been one of the most prominent and highly favored counties in the State from its first settlement. Indeed, while yet the smoke curled gracefully over the wigwams of Keokuk, Wapello, and Blackhawk, the pioneers of education appeared with those of civilization to appropriate the choice lands and localities to that high interest; and to their efforts at that early day, are we chiefly indebted for the leading part her sons have ever bourne in the eventful history that has since transpired, as well as for the truly enviable reputation our county and city has enjoyed for its appreciation of education and true progress. In agriculture she has boasted the chief of farmers, whose fame as such was world-wide, leaving an enduring monument of individual enterprise and achievement.

As there is much in a name, we presume the truly enviable history of the county might contribute somewhat to the success of our enterprise, which did not begin its existence without misgivings on the part of its friends, lest through the indifference of some and inconvenience of other members of the profession, it might fall "still born," or, at least not survive its dentition. But, as more hopeful councils prevailed, we here to-day verify, not simply the practicability, but satisfactory success of the experiment.

The rapid advancement in all departments of medical sciences the past half century, we have reason to believe is mainly due to the numerous organizations of this character in our country and the civilized world.

While other medical schools initiate the novice into our profession, the school for thesis and debate cultivates and qualifies him for its arduous duties.

The observations and theories which find their way into Medical literature through this crucible, are generally worthy the attention of the student of his profession. We are aware that there are medical gentlemen, of pretention, too, who, by a habit of non-intercourse with their neighbors, in consultation or discussion, foster the somewhat popular idea, that to be born

the seventh son, or "in the light of the moon," is to have medical knowledge by intuition which is preferable to the teaching of books or societies. But as few of us can boast these great natural advantages, medical societies are needed to impart knowledge in the regular and legitimate way, to the uninspired at least, while the study and practice of the medical profession, affords the means of the highest culture and development, both of the moral and intellectual man, when pursued with that end. If pursued for selfish, mercenary ends, and popularity in the profession, with an extensive practice, is attained as the fruit of a system of general demagoging, good Lord, and good devil, good Christian, good infidel, good saint, good sinner, good homœopath, good allopath, all things to all men to gain money, it certainly furnishes the occasion for cultivating the most undesirable character we can conceive.

On the contrary, if the extended acquaintance and practice comes as the fruits of the successful treatment of disease, from laborious study of the profession and valuable contributions to medical science, it is truly an honor and satisfaction to enjoy such public confidence.

As the practice of our profession necessarily leads to a competition of a peculiar and delicate character, it is desirable that our social and friendly relations be such that a generous hand may ever be ready to cast the mantle of charity over any seeming dishonor or error of a professional brother; and as a means to this end we unite around the social board on this anniversary occasion.

In response to the toast, "Southern Practice," Dr. O. M. Long remarked that he would postpone any extended remarks until some future occasion.

Dr. Rhoades responded to the sentiment, "Vicarious Finger Sight," with a few brief remarks.

Dr. Askew, in response to the sentiment, "The Profits of Practice," remarked that, "if any practitioner of medicine hoped to make a fortune in the legitimate practice of his profession, he was afraid he would be doomed to disappointment."

Dr. Fisher, in response to the sentiment, "Experience *versus*

Theory," remarked that "He could not understand why, when there were those present who had been much longer in the field, that he should be called upon to talk of experience. Though he deemed theory very important, yet experience was quite as essential to a successful practice."

Dr. M. M. L. Reed gave a very thrilling narrative of "the difficulties of medical practice in the early settlement of Illinois."

Dr. Johnson, of Lynnville, in response to the sentiment, "The farm the fruit of a successful practice," remarked: "I have the farm, and I will tell you how I got it, and how you may do likewise. Forty years ago, I pledged myself to total abstinence from all intoxicating drinks. I also made it a rule never to be away from my office unless called away by professional business. By strict adherence to these two rules he deemed that a farm, if desired, would follow as the fruit of a successful practice."

Dr. J. T. Cassell, in response to the toast, "Early Practice in Kentucky," remarked that "he believed that in the legitimate practice of medicine a practitioner could acquire a fortune. In a few years' practice in Kentucky, by diligence and hard service, he had secured enough to supply his wants for the balance of his days."

Dr. J. W. Craig, of Arcadia, in response to a sentiment read a brief and very humorous poem, which was received with great applause.

Dr. G. R. Bibb made a few remarks upon "The Tribulations of a Young Practitioner."

Dr. Lucus responded to the sentiment, "Medical Science at home and abroad," and called out Dr. Prince.

Dr. Prince made a few remarks and proposed "The Records of the Morgan County Medical Society," calling Dr. Wilber to respond.

Dr. Wilber remarked that having taken up so much time of the Society in his report at the morning session, he would simply in the name of the Society offer a conundrum:

"Why are the frequent non-attending members of the Society

like gophers?" Because they make their marks here and there in little mounds of fresh earth, but that is all the Society sees of them.

Dr. DeLeuw gave in response to "Change of Location," the sentiment, "a '*Pereat!*' to all who pretend to be physicians, but who are *only* pretenders."

Dr. Knight spoke in response to the sentiment, "Practice in Town and Country," and Dr. Weagley in response to "Medicine and Agriculture."

Dr. Buckner suggested the propriety of adopting more method in the appointment of individuals to take part in the regular meetings of the Society.

His remarks resulted in the passage of a motion instructing the Secretary to call upon the members in alphabetical order to prepare essays for the regular meetings of the Society.

Drs. Askew and Buckner were announced by the president as the essayists for the next regular meeting.

At 5 o'clock P.M., the Society adjourned to meet on the second Thursday in June.

C. T. WILBUR, M.D., Secretary

Selections.

II.—ON THE INFLUENCE OF HYPODERMIC INJECTION UPON THE SCIENCE OF TOXICOLOGY.

By S. P. DUFFIELD, Ph. D.

So wide has been the beneficial influence of improvements in chemical analysis, that it would be superfluous to attempt to make any further observations on the important part performed by this branch of the science.

When medicine, in the earlier times, stepped forth and claimed preeminence and respect, while the untiring alchemest, with his *furore*, furnaces and fumes, sought for that elixir which should place eternity within his control, she was then encircled

by the *fancies* of her speculative philosophy, encumbering the studies of all her collateral branches.

But in the present age, the exact methods of investigation have plunged her again into a new labyrinth of untenable theories. The famous trial of Palmer, in England, for poisoning his victim with strychnia, drew all chemists to investigate most thoroughly the behaviour of this alkaloid to chemical reagents, and we now have full data and methods which render its detection and recognition quite easy and simple.

The beautiful system of dialysis by Graham has been another step in advance, and can truly be called one of the æsthetics of toxicology, divesting it, as it does, of the curcuitous and very unpleasant course heretofore pursued in examining the viscera of a poisoned subject. But brilliant and rapid as have been the advances in this department of Chemistry, those very discoveries have turned up new obstacles to be overcome.

Of late years, a system of introducing remedial agents into the circulation, more rapidly than can be done through the agency of the stomach, bids fair to place in the hands of designing persons a power which has never before been posessed by any within or without the profession of medicine. I refer to the system of hypodermic injection, becoming now so deservedly popular with the "regular medical profession."

This system owes its success to the facility with which poisons are introduced into the blood.

From the earliest times, *blood* has been a favorite topic.

Moses, in accordance with the views of the ancient Egyptians, placed the seat of life in the blood.

One might, therefore, reasonably have expected that subject which had played such an important part in medicine would have had more than empirical support, on which to base some degree of accurate knowledge.

When we remember that only three-fourths of a century ago oxygen was unknown to the chemist, we can readily perceive why former investigators were powerless. Even to physics, which had solved some of the great astronomical problems, the phenomena of the animal organism were a sealed book.

Albinus took no meagre view of organic activity in nature when he established the axiom, that the essence of life, or the vital force, consisted in *motion.*

Changes are continually going forward in the living body; physical forces are always striving for the equilibrium; the matter set in motion by them finds its centre of gravity—its point of rest. Force is nothing more than the expression of

the casual account of natural laws; and if facts do not accord with *our* laws, we have either formed false opinions, or have imperfectly investigated the different circumstances under which they were exhibited.

Within the past few years the science of toxicology, as developed by the German and French chemists, has attained an accuracy which is surprising, when we contemplate the crude state it was in fifty years ago. But rapid as has been its progress, there has suddenly arisen a barrier to its advance, more more formidable than any it had to meet before.

Friedberg and Ritter mournfully acknowledge that the day has not yet arrived when we can detect the difference between dried human and ox blood. A few entuusiasts have claimed a *peculiar oder* to different kinds of blood; but these tests stood on so slender a foundation, and required an almost *hyper-excited* nose to detect them, that no conscientious expert will, for one moment, depend on it for convicting the criminal. The microscope, with its polarizing prism, is not able to distinguish between the most of domesticated animal's blood and that of man, after it has been dried any length of time.

We are not able at the present day to detect *absorbed* alkaloidal poison, and this is the fact forming the subject of this essay, and to which I wish most particularly to call your attention. There can be no doubt that these powerful agents, of which strychnia and morphia are the types, are absorbed into the blood, and diffused throughout the system like other poisons. There seems to be a want of unity in the statements relative to their deposition in the viscera, and their subsequent elimination. M. Stats, in 1847, announced the discovery of the alkaloid in the tissues; but it is questionable whether this was not some portion of the nicotine which had beeu imbibed rather than absorbed. Referring to his process, with which all analytical chemists are familiar, he says he has separated strychnia and brucia from nux vomica, veratria from extract of veratrum, emetina from extract of ipecac, colchicin from wine colchioum, hyoscoamia from extract of henbane, and atropia from extract of belladonia. Some of the poisons mentioned here will destroy life—the fraction of a grain. Mr. Morson, of England, prepares aconitine, of which 1-144 of one grain is the full dose, and says that perhaps the 1-50 would prove fatal to an adult. Where is the analytical chemist who could separate, in quantity enough to give reliable colour test, and obtain crystals, visible even with the strongest microscope, thus 1-50 portion of a grain after it has been thoroughly transfused

through twenty-eight pounds of blood, and all the tissues and organs of the body?* He who has this power can detect, and separate, and weigh the specific poison of rabies or of the rattlesnake, and could justly be classed as a rival of Omnipotence itself.

Among numerous cases of poisoning by opium or its alkaloids which have fallen to my lot to examine and depose on, I cannot conscientiously say that I ever detected *absorbed morphia.**

The same remark will apply equally to strychnia, and I cannot see how some men will state deffinitely they can separate *absorbed strychnia*, but have never dared to undertake the task; knowing that the patient dies from the poison absorbed, they, while claiming they can detect and separate *absorbed poison*, contented themselves with extracting the contents of the stomach. When we look back, we find that up to May, 1856, as regarded the detection and separation of strychnia, *chemical science was a blank.* In no once instance before this had strychnia been obtained from the tissues of the corpse, and in the greater number of cases, it had not even been found in its unabsorbed state in the stomach.

With respect, therefore, to the separation of the vegetable poisons, from the blood and tissues, the results are very unsatisfactory. We look in vain in the treatises of Orfila, Kopp, Christison, and in the more recent works of Gauttier, Flandin, Casper, Otto of Braunschweig, Rocker, for any instance in which they claim absorbed strychnia to have been detected either in the human being or in animals; and, in this particular, strychnia is but a type, for the same remarks hold good of other alkaloids.

Dr. Harly, of University College, examined the blood of a dog killed by the 1-12 of a grain of acetate of strychnia injected into the jugular vein. The blood, after the death of the dog, gave no evidence of strychnia. Mr. Hoasly, of Cheltenham, examined the blood and tissues of a dog which he poisoned with two grains of strychnia, and could not detect its presence. Dr. De Vry, of Rotterdam poisoned a dog with nitrate of strychnia, introduced into a wound, and after its death, he examined four ounces of blood, but not the least trace of strychnia was detected. In another case, in which a dog was poisoned in four days by half a grain of strychnia in divided doses, the chemical analysis led to a negative conclusion, not only in the blood and tissues *but in all* parts of the body. Dr. Crawcour, of New Orleans, gave a rabbit half a grain of strychnia; the animal died in half an hour. No trace

of the poison was found in any part of the body. In a case of poisoning which occured to Dr. Geoghegan, of Dublin, in 1856, thirty ounces of urine, which had passed the patient from the fifty to the thirty-first hour, when carefully analyzed, did not yield any trace of strychnia. A case of great interest bearing upon this subject occurred to Mr. Wilkins, of Newport, in the Isle of Wright, in February, 1857. A gentleman died in six hours after taking about three grains of strychnia for the purpose of self-destruction. The long period he survived was most favorable for the diffusion and deposition of the poison. The blood and heart were examined by Dr. Taylor and Mr. Scanlan, portions of the liver and lungs were examined by Dr. Christison and Dr. Douglas Maclagan, of Edenburgh, and one kidney was examined by Dr. Geoghegan, of Dublin. The result was, no trace of absorbed strychnia was detected in any one part. In reference to the detection of other alkaloids in an absorbed state, there is an absence of facts. That they enter the blood by absorption is placed beyond a doubt; but whether, when there, they are partially changed, or deposited unchanged in the organs, has not yet been satisfactorily determined by experiment. Dr. De Vry has made recently experiments on the alkaloids, and arrives at the conclusion that that part of the alkaloid which acts mortally is decomposed in the living body. The examination of a large number of cases in the human subject can alone determine perfectly this most important point in toxicology.

Be that as it may, we are absolutely certain of a failure in attempting to detect the poisonous alkaloid atropia in the blood, if administered by hypodermic injection, as it would not require more than one-half a grain to prove fatal. Analytical chemistry, which has, up to this time, occupied so prominent a position, and been so ably associated with forensic medicine, is now perfectly powerless. She cannot solve this problem. There may come a time when more accurate methods and more delecate reagents may lead us to a satisfactory solution of it. Heretofore she has been the Nemesis which pursued, with outstretched grasping hand, the murderer. That hand has been paralyzed by this bold application of principles of chemical physiology in the treatment of disease. The only means now of detection will lie in the testimony of the physician of the symptoms observed by him, at the bedside of the dying person.*

Synthesis is far ahead of analysis, and we must admit that this is a problem of great importance, and to which the attention of toxicologists should be turned. For the present we

must say, as we stand grouping on the confines of mortality, and straining our powers to discover in the broad, measureless eternity some means of controlling the moral effect of this fact, and some law which may lead us to processes of detection, that just now we realize how hopeless the human mind is, how utterly futile has been its attempt to discover a mode of detection. In future many a throbbing heart will suddenly cease, and no eye but God's be able to detect the murderer. For the present too much weight cannot be given to the testimony of medical witnesses at the bedside; if that is not had, and no physician was uear at the time of death, we are cast to drift upon an unexplored and perhaps a shoreless sea.

Medical testimony now become all-important, and chemical testimony wanes in value, for no satisfactory results can be obtained. Juries will now, more than ever, be dependent upon circumstantial evidence.

Mortifying in the extreme as it is to our professional pride, stripped of professional honors in medico-legal investigations, the chemist and toxicologist now, if never before, realize the truth that comes floating to us on the dying breath of La Piace —"What we know is little, and what we are ignorant of is immense."—*Proc. Amer. Pharm- Assoc.*

*Equals the 1-9800000 of a grain, assuming *only* the blood contains it. If diffused through the whole body, allowing 128 pounds for tissues, it would then be reduced to the 1-44800000.

*In the case of a woman who committed suicide at one of our hotels and whose stomach was handed me immediately after death, I was able to separate only two grains, when she had actually taken ten grains. Again, in the case of a homœopathic physician who gave solution of morphia, I detected the 1-8 of a grain in a teaspoonful of the solution, and could only get a colour test for morphia from the stomach.

*There is just reason to hope for good results, from analysis, by the spectroscope. Bunsen discovered, in this way, the new metal Cæsium in matter weighing only 1000th part of a grain. —Ed.

Death from Chloroform at Bellevue Hospital.—A death from chloroform took place recently at Bellevue Hospital on the occasion of the performance of a rhinoplastic operation by Professor Hamilton. The patient was a robust, middle-aged Irish woman, whose nose had been bitten off in an encounter with an negro. A preliminary operation had been

made for the purpose of forming a flap for the new member, and evetything had progressed favorably. The second operation was intended to complete the formation of the nose, but before it could be commenced, the patient expired. It seems that chloroform had been first administered by two of the hospital internes with a view of bringing the patient rapidly under the influence of an anæsthetic, and an effort was afterwards made to employ ether, but insensibility not being satisfactorily induced, chloroform was again employed with the desired result, and the anæsthesia afterwards kept up by ether. As the operator was about to commence, the patient was noticed to grow suddenly pale, the pulse ceased at the wrist, and despite every exertion to resuscitate her by means, first, of artificial respiration, then of the galvanic battery, and afterwards by artificial breathing following laryngotomy, the patient expired. The materials were chemically pure, and the usual care was taken in their administration. Death took place as the result of paralysis of the heart.

The new Treatment of Rheumatism. MESSRS. EDITORS.—I am glad you published Trousseau's formula from Parrish, as it enables me to correct an error. I had not read it before, but simply saw it was announced as in Parrish's book. Trousseau's own statement is of a syrup saturated with lime. "*Il se prepare en saturant le sirop de sucre par le chaux et en filtrant.*" On looking at Parrish, I find it is to be made of *slaked lime.* This is entirely wrong. *It should be made of caustic lime.* The best formula would be to mix two (2) ounces of lime unslaked and eight (8) ounces of sugar together in the mortar, and pour over the mixture a wine pint of boiling water. Add boiling water enough to mske up the pint, and filter. By the use of boiling water, the operation is more rapid and the formation of lumps is avoided. Of this I have given as as much forty-five drops every two (2) hours in one case of acute rheumatism. Generally, thirty-five (35) drops in half ($\frac{1}{2}$) a tumblerful of milk every three (3) has been enough. The diet in my cases has been left to the patient's choice.

Boston, March 2, 1867. Very truly yours,

CHAS. E. BUCKINGHAM.

We give so much of our space in the present number to the Proccedings of the American Medical Association, and the Convention of Delegates from Medical Colleges, that we have none left for book notices and editorial comments.

Personal.—Our colleague, Edmund Andrews, M.D., Professor of Surgery in Chicago Medical College, and of Clinical Surgery in Mercy Hospital, will leave for Europe between the 5th and 10th of June. Prof. Andrews goes abroad neither for health or recreation, but for the purpose of profiting by a tour of observation in the hospitals and medical institutions of Europe. He is also a delegate from the American Medical Association to the International Medical Congress, to be held in Paris next. He expects to arrive home again before the 1st of October. We wish him a pleasant and profitable journey and a safe return.

Bellevue Place.—This is the name of a private asylum for the treatment of the insane. An advertisement of it will be found in the proper place, in this number of the Examiner. We take special pleasure in calling the attention of our readers to the institution, because we are personally acquainted with Dr. R. J. Patterson, the Superintendent, and regard him as one of the most experienced and skilful managers of the insane in our country, and a man of perfect integrity.

Money Receipts from April 22d to May 27th.—Drs. H. H. Guthrie, St. Charles, Minn., $3; M. A. Fox, Shulsburgh, Wis., 3; J. B. LeBland, Brownsville, Minn., 3; A. Grætinger, Milwaukee, Wis., 3; Darius Mason, Prairie du Chien, Wis., 3; Harrison Rodebough, Greenup, Ill., 3; E. L. Holmes, Chicago, Ill., 3; D. B. Bobb, Dakota, Ill., 3; G. W. Rohr, Rockford, Ill, 3; R. L. Walston, Paris, Ill., 3; D. S. Jenks, Plano, Ill., 3; G. M. Fox, Lyons, Ill., 9; D. B. Wren, Fair Haven, Minn., 3; F. F. Stair, Paoli, Wis., 2.50; W. H. Cook, Hillsboro, Ill., 3; E. Dyson, Chicago, Ill., 3; Wm. J. Wheeler, Youngstown, Ohio, 3; E. Winchester, Elgin, Ill., 3.

Mortality Report for the Month of April:—

CAUSES OF DEATH.

Accidents,	3	Fever, Scarlet,	7
Apoplexy,	2	Fever, Typhoid,	12
Bronchitis,	1	Fever, not stated,	3
Burned,	1	Gravel,	1
Cancer,	2	Hydrocephalus,	6
Cold,	2	Hæmorrhage,	1
Croup,	10	Inflammation of Bowels,	3
Cholera Infantum,	5	Inflammation of Brain,	8
Consumption,	28	Inflammation of Lungs,	6
Convulsions,	20	Jaundice,	1
Childbirth,	4	Killed,	4
Congestion of Brain,	4	Measles,	1
Congestion of Lungs,	1	Old Age,	8
Congestion,	1	Poisoning,	2
Delirium Tremens,	2	Paralysis,	1
Decline,	2	Pneumonia,	6
Diarrhœa,	2	Phthisis Pulmonalis,	3
Diphtheria,	8	Rheumatism,	1
Dropsy,	11	Suffocation,	1
Drowned,	8	Suicide,	2
Disease of Heart,	5	Spinal,	3
Disease of Liver,	1	Stillborn,	16
Disease of Throat,	1	Small-Pox,	8
Epilepsy,	1	Chicken-Pox,	1
Fever, Brain,	5	Spasms,	1
Fever, Spotted,	1	Teething,	6
Fever, Puerperal,	1	Whooping-Cough,	4
Fever, Lungs,	10	Unknown,	18
Fever, Nervous,	2		

Total,	278
Total number last year for the month of April,	278
Total number during the month of March,	280
Total number during the month of April,	278
Decrease,	2

DIVISIONS OF THE CITY.

North,	76	South,	87	West,	113	Total,	278
Unknown,							2

Ages of the Deceased.—Under 5 years, 133; over 5 and under 10 years, 9; over 10 and under 20, 13; over 20 and under 30, 26; over 30 and under 40, 30; over 40 and under 50, 23; over 50 and under 60, 13; over 60 and under 70, 11; over 70 and under 80, 7; over 80 and under 90, 1; unknown, 2. Total, 278.

NATIVITIES.

Chicago,	143	Germany,	27	Wales,	1
Other States,	40	Ireland,	38	Unknown,	5
Bohemian,	2	Norway,	1		
Canada,	3	Sweden,	2	Total,	278
England,	10	Scotland,	2		
France,	2	Switzerland,	2		

BELLEVUE PLACE.

This private institution for the Insane is located in the beautiful Town of Batavia, Illinois, near the bank of the Fox River, thirty-five miles west of Chicago. It is accessible by the Dixon Branch of the Northwestern Railroad, via Junction Station, and by the Chicago, Burlington & Quincy Railroad, via Aurora.

BELLEVUE PLACE, which is a permanently built, stone structure, commodious, having ample grounds and fine views, is especially fitted and furnished for the care and treatment of the Insane, though it is deemed unnecessary that the name "Asylam," or "Hospital for the Insane" shall attach to it. It is under the immediate Medical care of R. J. PATTERSON, M.D., formerly Medical Superintendent of the Indiana State Hospital for the Insane; late Medical Superintendant of the Iowa State Hospital for the Insane; and Professor of Medical Jurisprudence in the Chicago Medical College.

Consulting Physician----------Prof. WM. H. BYFORD, M.D.
Consulting Surgeon,----------Prof. E. ANDREWS, M.D.

REFERENCES BY PERMISSION.

ANDREW McFARLAND, M.D.,
Medical Superintendent Illinois Hospital for Insane, Jacksonville.
M. RANNEY, M.D.,
Medical Superentendent Iowa Hospital for Insane, Mt. Pleasant.
A. H. VAN NORSTRAND, M.D.,
Medical Superintendent Wisconsin Hospital for Insane, Madison.
E. H. VAN DEUSEN, M.D.,
Medical Superintendent Michigan Asylum for Insane. Kalamazoo.

N. S. DAVIS, M.D., W. H. BYFORD, M.D.,
DE LASKIE MILLER, MD., EPHRAIM INGALS, M.D.,
CHICAGO, ILL.

Department for females only, now ready for patients.

june3m. Address R. J. PATTERSON, M.D., Batavia, Ill.

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For the immediate production of Beef-Tea.

This Extract consists of the juices of Choice Beef, cooked in the most perfect manner and concentrated by evaporation in vacuo into the smallest bulk. One pound comprises the soluble portions of twenty pounds of fresh beef obtained from mature animals slaughtered while in perfect health.

This Extract of Beef differs from Borden's Meat Biscuit (see U. S. Dispensatory) by being concentrated to a degree four times greater, and in not containing the farinaceous constituent, without the aid of which perfect preservation had not then been obtained. It is a nut-brown substance of the consistence of caoutchouc, possessing the flavor of delicately roasted meat and keeps in perfect condition for an indefinite length of time.

Dissolved in varying proportions, in hot water, and seasoned a Beef, Tea, or Essence of Beef, of any desired richness is instantly produced, of aromatic flavor, more palatable than and superior in all essential qualities to that made by ordinary culinary methods, and which is gratefully received and retained by the stomach when other forms of food are rejected.

It has received the highest approval of many of the first physicians in the United States, and is offered for use wherever a stimulating and supporting aliment is indicated.

Full directions accompany each package.

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THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M.D., Editor.

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Original Contributions.

ARTICLE XXVIII.

CONCENTRATED ORGANIC REMEDIES.

By F. R. PAYNE, M.D., Marshall, Ill.

Read before the Clark County Medical Association, April 3d, 1867.

There is no branch of human knowledge so much indebted to chemistry for practical developments as that of medicine. The chemist, with his laboratory, is able to present to the profession the active principles of plants, either combined or separate. It is, certainly, very desirable for the practitioner to possess the active principles of the vegetable kingdom in a concentrated form. It is equally important that we secure these remedies in a durable form, and of uniform strength, containing all the medicinal principles of the plant. By this means, the stomach receives nothing but that which is necessary for the removal of disease. It has been demonstrated, by chemical analysis, that vegetables contain resinoids, neutrals, oils, and alkaloids, and in these elements reside the therapeutic properties. It is the object of this paper to briefly speak of a few of the comparatively new remedies which have been prepared in powdered form, and represented as containing all the medicinal principles of the roots or plants from which they are obtained.

The first to which we will refer, is the

GELSEMIN.

This a remedy derived from the bark of the root of the common woodbine, or yellow jessamine, and contains three principles, resinoid, neutral, and alkaloid. Its properties are febrifuge, nervine, anti-spasmodic, relaxant, and some claim that it is alterative and ecbolic. If the remedy possesses all of these properties, it may, with every promise of success, be employed in the treatment of all febrile diseases, pneumonia, pleuritis, acute rheumatism, gonorrhœa, chorea, epilepsy, convulsions, in short, all inflammatory and nervous diseases. I cannot, by my limited experience in its use, testify to its value in this wide range of human maladies, but feel sure that it is one of the best arterial sedatives known to the profession. It is a positive and active therapeutic agent, and by isolating the three principles of the plant they are recombined and form a beautiful and durable powder, with a definite and uniform standard of strength. The average dose of gelsemin is one-half grain, but in some cases, owing to constitutional peculiarities, it may require two grains. If it is not given in sufficiently large doses to produce its constitutional effects, it will not fully accomplish the object for which it was administered. It must be given in doses that will cause slight dimness of vision and double-sightedness, but in no case should the remedy be carried to complete prostration of the muscular system. Physicians who have used this remedy extensively state, that even when carried to complete exhaustion, no permanently injurious effects are produced. The beneficial effects of this remedy are often manifested before constitutional symptoms are produced. When the dose is large enough to reduce the pulse to its normal standard it is not prudent to increase; but the remedy ought to be continued for some time, in small doses, after the action of the heart is controlled. I have used this remedial agent in pneumonia, typhoid fever, convulsions in children, produced by excessive febrile excitement, and, in fact, in all cases of fever where the pulse exceeds 100 per minute, and can testify to its value in these diseases. It is, undoubtedly, a valuable remedy, and it is in a convenient form, which is a very important con-

sideration to the country physician, who is not only called upon to prescribe, but to dispense the medicines recommended. It is not a specific, but a positive and powerful agent, consequently not to be trifled with or incautiously used. When given at the proper time and in small doses, it is as harmless as any other potent drug in the materia medica.

CAULAPHYLLIN.

This is the blue cohosh, or squaw root. It has two principles, according to the analysis of B. Keith, consisting of a resinoid and neutral. It is claimed by some who use this remedy, that it is a valuable antispasmodic, alterative, tonic, ecbolic, diaphoretic, diuretic, and vermifuge. The average dose is three grains. It is said that this dose may be repeated every hour or two with perfect safety, and even increased to five or ten grains. This remedy is highly extolled by G. COE, M.D., and others, but we cannot testify to its value. We have used this preparation, prepared by Dr. F. D. HILL, Cincinnati, and feel confident that it is not entitled to the reputation claimed by this school of exclusive remedies. It is only a temporary remedial agent. If this preparation is a fair representative of the medicine, it is not entitled to the favorable consideration of the profession. We are willing to use all therapeutic agents which, by experience and proper test, proves to be valuable. We have used the remedy in combination with others, but do not regard it as even a good auxiliary remedial agent.

LUPULIN.

This is derived from the common hop. The part used is the strobiles, or cones, and is said to contain three principles, resin, resinoid, and neutral. Its properties are nervine, febrifuge, hypnotic, diuretic, and tonic. When it is employed, you may, with confidence, expect beneficial results. When given to small children, we have noticed that it frequently promotes diaphoresis and diuresis, and often succeeds in the production of refreshing sleep. It is also a valuable tonic, mild in its operation, and valuable in many forms of indigestion, and especially where there is a tendency to gastritis. It allays and soothes

the irritability of the mucous tissues, and thus aids in the process of digestion. I have used this remedy, and feel confident that it is a valuable auxiliary remedial agent. The lupulin usually found in commerce, is nothing more than the pollen of the flowers. The best preparation contains all the medicinal virtues of the hop, which reside not only in the pollen, but also in the parenchyma.

The dose of *true* lupulin is from two to five grains. We have used it in febrile diseases in children, and if we have a genuiue preparation, it will in many cases produce hypnotic and febrifuge effects. It is especially valuable in diseases of children, where we desire an anodyne and cerebral excitement precludes the use of opium and its preparations. It also possesses other advantages as a substitute for opium, by not disturbing the stomach, or producing constipation. We have noticed that when this remedy fails to produce hypnotic or anodyne effects, it proves a valuable diuretic; I have frequently had patients say that it did not make them sleep, but caused a free flow of urine. The celebrity and value of common *hop-beer*, as a tonic, nervine, and diuretic, depends upon the lupulin it contains. The good or bad quality of the beer depends upon the quality and quantity of lupulin used in its preparation.

We have used lupulin with good results in nervous headache, hysteria, chronic cough, and suppression of urine. It is highly recommended as a valuable remedy in spermatorrhœa, but we have not tested its virtues in this disease. It is certainly a good remedy for irritability of the mucous tissues. It is very important to get a genuine article, and not simply the pollen of the flowers.

SANTONIN.

This is a remedy obtained from the *artemisia santonica*, or mugmort. It is a peculiar, white, crystalline substance, soluble in ether or alcohol, and almost tasteless. It is a native of Europe, but is now being cultivated in the United States. We also have the brown, or impure santonin, which is derived from the Aleppo wormseed. This is cheaper than the former. The properties of this valuable concentrated remedy are said to be

tonic and narcotic, but its chief value consists in its anthelmintic virtues. I have used it extensively for the last six years, and feel warranted in stating that it is the best remedy known for the destruction of the acaris lumbricoides. It is an active and powerful remedial agent, but when properly administered it is not only perfectly safe but reliable.

It may be administered alone, or in combinations with other agents. When children are troubled with worms, the symptoms of any disease with which they are attacked are aggravated by the presence of these intestinal parasites, and we can use the santonin in combination with the appropriate remedies for the disease. Our favorite mode of prescribing this medicine is as follows, for a child say three years old:—

℞. Santonin,---------- grs. iij.
Hyd. cum creta,---------- " vi.
Dover Powd,---------- " ij.

Mix,

and make three powders. Give one every three hours, and four hours after last work off with *oil castor* and a few drops turpentine.

This prescription will never fail to expel lumbricoides if they are in the intestines. We have frequently administered one or two doses of santonin alone, and often it has been followed by the expulsion of from six to twenty worms, and this result was accomplished without the subsequent use of a cathartic. For several years, we have almost invariably added santonin to the first cathartic powders given to children, in the treatment of any disease with which they have been attacked, and, oftentimes, where the existence of worms is not anticipated, large numbers will be expelled. We can, with perfect confidence, recommend santonin as one of the most convenient and reliable anthelmintics belonging to that list of remedies.

When properly administered, no injurious effects can possibly result from its use. If given in large doses, it will produce some cerebral excitement, but, according to our observations, its specific action is fully obtained without the production of its constitutional effects. We earnestly recommend this remedy to all practitioners who have not yet used it.

ASCLEPIN.

This is the active principles of the *asclepias tuberosa*, or pleurisy root. The part used is the root, and it contains two principles, resinoid and neutral. Its properties are said to be alterative, antispasmodic, carminative, diaphoretic, diuretic, expectorant, laxative, and tonic. If it possessed all these properties, it might, with every hope of success, be employed in all fevers, pneumonia, pleuritis, rheumatism, colic, colds, and inflammatory diseases, of whatever type.

We have used this remedy in many cases, and feel sure that it is of but little, if any, value. We have never been able to notice any good effects result from the use of the preparation prepared by Dr. HILL. During the last six years, we have given it a fair and impartial trial, but have invariably been disappointed. If the article we used is a fair representative of the remedy, it is not even entitled to a place in the materia medica.

PHYTOLACCIN.

This is obtained from the root of the *phytolacca decandria*, or common poke root. It has two principles, resinoid and neutral, and its properties are alterative, deobstruent, and diuretic; in large doses, emetic and cathartic. It may, with every prospect of success, be employed in the treatment of rheumatism, glandular, and cutaneous diseases.

We have found it a potent and reliable agent in the treatment of diseases where there is tardiness of action on the part of the secreting, absorbing, exhaling and eliminating vessels.

It is a powerful remedy, and ought to be administered with great care. From one to two grains, three times a day, it proves a good, safe, and efficient resolvent, and manifests its influence in all the glands of the body. In the chronic form of rheumatism, it is a remedy of decided utility. We have used the following combination in cases of chronic rheumatism, with good effects:—

℞. Phytolaccin, ----------
Podophillin,----------āā ℈j.
Gelsemin, ---------- grs. x.

Mix, and make twenty powders, and give one every six hours. If this nauseates the stomach or acts too vigorously on the bowels, we diminish the dose of the two first and add $\frac{1}{8}$ grain morphine to each powder.

We have never thoroughly tested the virtues of this remedy in any other disease, but feel confident that it might with propriety be used in enlargement of the spleen and hepatic torpor. It is highly recommended by some, as a valuable remedy in tuberculosis, gonorrhœa, leucorrhœa, and carcinomatous affections, but in the latter it is used externally.

In using these concentrated remedies, it is vastly important for the physician to procure genuine articles. Some chemists prepare them in such form that the doses above indicated are too large; at the same time, other preparations are not of sufficient strength. It is, therefore, left to the judgement of the practitioner to decide the propriety of quantity and repitition of the article used. It seems to be a fact, fully established, that compound vegetable substances which contain only a small number of elements and atoms are more durable than those more complicated. In proportion to the multitude of the atoms and principles that enter into the composition of organic compounds, we have an increased disposition to undergo transformation and decomposition. This fact is important to those who desire to procure the active medicinal principles of plants. It is hoped that we will soon be presented with the active principles of the following crude remedy:—

POLYTRICHUM JUNIPERUM.

This is the common *hair-cap moss.* It is an evergreen and indigenous plant, and there can be no doubt, with those who test its virtues, that it is a valuable diuretic. It grows on high, dry places, along the margin of woods and exposed places, and seems to prefer a poor, sandy soil.

We have used it with decided benefit in many dropsical cases.

The dose is about two fluid ounces of the effusion every half-hour. It is very highly recommended by some medical men, and we feel confident that it is a better, or at least more active diuretic than uva ursi or buchu leaves. Some physicians assert

that they have, with this remedy, removed from dropsical patients, in twenty-four hours, forty pounds of water.

From what we know, by experience in the use of this agent, we can with confidence recommend it to the profession as a pleasant, safe, and reliable diuretic. It is hoped that, by the aid of chemical laboratories, we will soon be presented with the active principles of this plant in a concentrated form.

Every country practitioner can readily realize the disadvantages of crude medicines. In this land of mud, it is very inconvenient to carry huge pill-bags, pregnant with crude roots and herbs; but this is a small matter, when compared to the inconvenience of patients swallowing pints and quarts of decoctions and infusions, in order to get the proper dose of a remedy.

ARTICLE XXIX.

ABBREVIATED REPORT ON OBSTETRICS.

By HIRAM NANCE, M.D., Kewanee, Ill.

Read before the M. T. Medical Society, Monmouth, Ill.

In writing a report on the Practice of Midwifery, to be read to any medical association whose meetings last only one day, and whose members come from five populous counties, I would be doing injustice to its members in making it lengthy. Short and sweet should be the motto on such ocasions, and this shall characterize this essay.

We are all familiar with the divisions of midwifery, or its more immediate conger, *labor:* into natural, or unnatural, or preternatural, rapid labor, tedious labor, instrumental labor, etc., etc. In writing this report, I may give *my practice and experience* in this branch of our profession, taking a retrospect, or a review, of my own personal past experience.

The practice of midwifery is certainly reduced to a science amongst the more elevated portions of society—pity I could not say the same in regard to all classes. What I mean by this is, that, usually, the more intellectual and intelligent avail

themselves of the services of physicians during the stage of parturition. And amongst this class, we find that the mortality originating from malpositions and puerperal diseases, of various kinds, is much less than among the less intellectual and poor. Does not this prove conclusively that the office of the physician is not a sinecure, or that his valuable services could not be dispensed with with impunity? It is true, that in many, if not in most cases of labor, our services could be dispensed with, and that any ordinary nurse or matronly lady could make gentle pressure over the uterine tumor during the immediate transit of the child from the mother into the world, thus preventing hemorrhage by the immediate contraction of the womb. Almost any nurse ought, also, to be able and wise enough to examine for the umbilical cord, and ascertain if it is around the child's neck, or is being compressed in any way that would endanger the life of the infant; she should also know enough to make the necessary efforts to resuscitate the child in case it is born asphyxiated, such as dashing cold water on it, HALL'S *ready method*, performing the act of artificial breathing, etc., etc. These troubles occur in the simplest cases of labor, and if our nurse is destitute of this small amount of obstetrical knowledge, she is not a fit person to occupy the lying-in room without a superior, in the person of a physician, being placed over her, in every case of obstetrics. As I remarked before, this branch of our profession is a science, and none but scientific persons should take the weighty responsibility upon themselves of engaging in its practice. One hour, fifteen minutes, yes, one minute, is sometimes enough to apply our skill and save a valuable life or lives.

The obstetrician should be a wise man; one well and thoroughly informed in his profession. He should know when to act and how to act, in all simple as well as difficult cases. In taking charge of an obstetrical case, the physician should, at a very *early stage* of labor, insist upon a digital examination. This, when accomplished, will not only allay your anxiety, but that of your patient, when you inform her that *all is right.* If the presentation is found to be natural, then you have but little

to do but cheer your patient up, until the last stage of labor; but if you find a malpresentation, then you hold yourself ready to act when the proper time arrives—remain in the room or adjoining one, subject to call at any moment, and make frequent but not officious examinations, to know when the proper time arrives for your learned skill to be employed. Indifference and timidity, connected with ignorance, has caused the death of many a fond wife and loving mother. You are not a fit man to practice obstetrics, if you are not patient yet energetic, and wise enough to know the exact moment when to lend the necessary aid to assist your patient out of a trouble, the most painful and serious that befalls our gentler sex.

By labor, we mean the delivery or the expulsion of the fœtus and its appendages. Labor is the consequence of conception; and the time occupied in utero-gestation is nine calendar months, or from 270 to 274 days. When interrogated by a lady, to know at what time her *accouchement* will take place, I enquire when she had her last menstrual flow, and from this time add one or two days more, and, usually, in nine months from that time she will fall in labor. Some obstetricians count two weeks from the last menses, and then add nine months; but I think our prognosis will be much more likely to be filled if we calculate as I first mentioned.

Labor is divided, with some degree of propriety, into four stages:—The first stage is known by a mucous or sanguineous discharge taking place from the vagina, from one to two or three days before true labor pains commence, also, we find at the same time, wandering pains about the back and loins, sometimes extending down the thigh. The second stage is known by the pains increasing in frequency and efficiency, commencing in the bowels and lumbar region and extending to the region of the womb, the dilatation of the os uteri, the protrusion of the bag of waters in the vagina, and the rupture of the same. When the liquor amnii has escaped without the interference of any external aid, and the presenting part of the child is in or or about entering the vagina, the second stage of labor is completed. Then comes the third and important part, or the

delivery of the fœtus, known by the firm contractions of the abdominal muscles and the uterus, the head engages in the pelvic cavity, the occiput generally being situate above the arch of the pubis or the left acetabulum, and the face opposite the sacrum of the mother. The head now, after some severe pains, presents itself at the vulva, powerfully distending the perineum; in a short time the head clears its confined state and is in the world; a minute or two elapses, and one or two severe pains accomplishes the delivery of the child. It now remains to separate the child from the mother, which being done, in ten or fifteen minutes slight pains return. By making the necessary pressure on the uterine tumor and gentle traction on the cord, we have the pleasure of having delivered our patient of the secundines, which include not only the placenta, but the different membranes which envelope the fœtus in utero; this delivery I would class as the fourth stage of labor.

Some obstetricians class the last throes of labor, with the delivery of the placenta, as the fourth stage; but I prefer to call the fourth stage the removal of the appendages, independent of the removal of the fœtus, for the reason that the delivery is not completed until this is over; and we are not justified in leaving the bedside of our patient until this is entirely completed, and we have ascertained, by examination, that the womb is firmly contracted. Immediately after, or just at the time the babe is being born, the hand should be applied over the hypogastric region, to ascertain if the womb is contracted; if it is not, no effort should be made to deliver the placenta, for if we do attempt it, a fatal hemorrhage might ensue.

I was called in consultation, a few years ago, to see a patient, who, the messenger said was dying; when I arrived, I found it too true, it was really the case. I interrogated the attending physician: he said, that morning he was called to see her, found her in labor, (the labor was premature, being about the sixth month,) that she lingered from about 2 or 3 o'clock A.M. until the afternoon of the same day, that the afterbirth did not come away readily, and that he found it necessary to make slight traction on the cord and introduce two or three fingers to re-

move it; that, in doing so, he accomplished it and left the room, and was in a very short time summoned to his patient, to find her very weak, pale, and faint. He immediately ordered carb. ammo., opii, brandy, etc., but finding reaction did not come on, he became alarmed and dispatched a messenger for me. When I arrived, she was really dying; pulse small and thready; countenance sunken and exsanguined; slow and difficult breathing; very uneasy, rolling from side to side; yet the intellect was perfect. On applying my hand over the bowels, I found them as large, if not larger than before the *accouchement*—the story, to my mind, was immediately told, *viz.:*—concealed, or internal, uterine hemorrhage. My advice to you is, never leave a patient until the uterus is firmly contracted.

If you are an obstetrician, you practice for the good of your patient, and your own reputation; you should not leave your patient, even if everything has been favorable, in less time than from 30 to 60 minutes. Had the attending physician in this case remained by the side of his patient, the consequences might have been different. The first symptom of the loss of blood, in nine cases in ten, is a desire for a drink of water; then, paleness, sickness, and fainting. These symptoms should rouse the fears of any physician, whether hemorrhage appears externally or not.

What course of treatment will you adopt if, upon examination, you find there is no hemorrhage externally? If there is no hemorrhage externally, and the symptoms that I have described are existing, your patient is *flowing*. How are you to know this? Apply your hand over the hypogastric region, and you will find that the uterus is not contracting, but that it may be nearly, if not quite, as large as it was before the birth of the child.

If you now, under these urgent symptoms, pursue a *dilly-dally* course of treatment, your patient in a very short time will be in extremity, and you will reflect upon yourself, and feel very much chagrined that your treatment was not more active and directly addressed to her wants. In brief, I would urge that no time is to be lost; administer a portion of ergot, sit

down by your patient, apply one hand over the hypogastric region and make firm pressure, in order to assist the uterus to contract. If, under this treatment, no contraction takes place, introduce the other hand in the uterus and press the knuckles or back part of the hand against the orifices of the bleeding vessels, at the same time keep making pressure on the outside; continue this treatment, and in a short time you will usually find the uterine tumor becoming harder and harder and the coagula coming away, and then the hemorrhage will cease. If this treatment does not succeed, you should also use cold water or water and vinegar injections in the womb, or pour iced water over the hypogastric region. The internal treatment should consist of tinct. opii, ergot, carb. ammo., brandy, etc., according to the best judgement of the practitioner. The treatment that I have described apply to cases where the placenta has been delivered. If the placenta is undelivered and retained, as in irregular or hour-glass contractions, of course it should be removed.

In the summer of 1866, a man, residing six miles west, came to consult me in regard to his wife. He called upon me about 8½ o'clock A.M. He said, about 5 o'clock that morning, his wife had been confined and delivered of a nice pair of twins, but the afterbirth did not come away; he wanted me to give him something to bring it away. He said a midwife was with her, and he thought that the case was not urgent, and she thought I could send something that would bring it away. I frankly told my friend of *Erin* that I was fearful the case was a serious one, and that I had better go out immediately; by so doing, I might save his wife much suffering, and, probably, her life. He *squirmed* and hesitated, and finally said, "they" told him to get some medicine. I informed him that I could send some medicine if he desired it, but that I was of the opinion that medicine would be of no avail, but that she would require the assistance of some physician to remove the placenta, if it had been retained four or five hours. After stating these things to him, the poor man was *penurious* and simple enough to leave me and go home without either taking medicine or

engaging my services, and letting his wife lie in torment until about 2 o'clock P.M. of the same day. About this hour, a messenger came, in a great hurry, for me to go immediately and see Mrs. L., as they feared she would not live. When I arrived, I found the old midwife there. She was wise enough not to do any harm, but sat by the patient, consoling her that "all would soon be right, as the doctor had come."

On examining the patient, I found her with a flushed face, full and rapid pulse, and a tendency to delirium; on applying the hand over the bowels, I found the uterine tumor hard and irregular; both umbilical cords were hanging out of the vagina, and, on digital examination, I could not find the placenta; I diagnosed irregular or hour-glass contraction of the womb, and the placenta in the upper chamber. I arranged the patient in a suitable position for operation for removal, administered chloroform, introduced my hand, found things as I had anticipated, grasped hold of the placenta, and, with the other hand applied externally over the placenta, gradually brought it away. It proved to be a large double placenta, firmly attached to each other. It being, delivered, I administered an opiate to my patient. When about leaving, I told them I would call the next day and see her, as I feared she would not get along well. He replied that, if any trouble occurred he would let me know; then grudgingly paid me my fee, after asking me to reduce it. Let me advise you, in like cases, to charge well for your services, and they will be better appreciated than when a mere nominal sum is demanded.

During the last six years and nine months that I have resided in Kewanee, only two cases of arm presentation have come under my immediate notice, and both of them were first under the care of midwives, secondly, under the care of other physicians, and, lastly, under my own care. The first case was a lady, about 40 years of age, with her sixth child. She was taken ill in the night and the midwife sent for, who encouraged her that she would soon get through. She continued giving this encouragement until about 3 o'clock of the next day, when, the lady not getting any better, the parties became restless and

uneasy, and, having lost confidence in the midwife, proposed sending for me, and did so, but I was not at home. A homœopathist was then obtained; he went, and found the arm in the vagina, with the hand out, the patient having very hard pains, forcing the arm out as far as the pelvis would permit. He manipulated with it in this condition for several hours. It seems that he had no correct idea how to deliver the poor woman; I think he must have pulled on the arm, hoping to pull it out in that way. After exhausting his *strength* and skill, all parties, and himself in particular, became satisfied that labor could not be accomplished without more skill than he possessed. He (the homœopathist) advised them to go for me as soon as possible, and tell me to bring my instruments. I obeyed the summons, not as a consulting physician, but because I had first been sent for. When I arrived, I asked the "doctor" what the difficulty was. He said, an "arm presentation." I then said to him, "what do you want with instruments?" "Oh!" said he, "to amputate the arm." I mildly told him he had no authority for such interference, and explained, in brief, that turning was the only treatment in such cases, where the pelvis was ordinarily capacious.

I then examined, and found the mother almost exhausted; constant pain; pulse 120; tenderness over the uterine region; and other symptoms of inflammation. On examination of the fœtus, I found the arm out, and it perfectly black. I administered chloroform, and turned and delivered her in fifteen or twenty minutes. The poor woman seemed to rally some after it was through, but the pulse still remained quick and the bowels tender. The mischief had been done; the long-continued pressure of the child in the pelvis and the arm in the vagina had set up an inflammation which spread to the peritoneum, and in six or seven days she died with puerperal fever, or metritis, connected with peritonitis. Had I been called at a proper time, I have no doubt but that I could have saved the life of this poor woman. It is humiliating to think that people will persist in employing such men, who do not understand even the first principles of midwifery, and thus sacrifice many valuable lives.

The second case of arm presentation was that of an Irish-woman, aged 33, with her fifth child. She was taken sick in the night and sent for an Irish midwife, who came and continued with her until 3 o'clock P.M. of the next day. She then concluded that the woman could not get through without the aid of a physician. Dr. SCOTT, of this place, was called and found the arm entirely out and the patient in great pain, almost continually. As the pains were so severe and almost without remission, he saw it was useless to attempt turning without the assistance of some other physician, and he requested that I be sent for, which was readily agreed to. The doctor administered chloroform, and I proceeded to turn, which I did with but little trouble in ten or fifteen minutes time. The child was dead; the mother got along without an untoward symptom.

I have not been fortunate enough in my practice to meet with an arm presentation at the proper time to turn, but have always found them in the situation of the two cases just related, *viz.:*—the arm forced down and the axilla resting on the brim of the pelvis; the waters all discharged; and the woman in almost continued pain. Could I select the proper time to turn, in arm presentations, I would wait until the os uteri was sufficiently dilated, then introduce the hand corresponding with the position of the feet in utero, rupture the membranes, grasp the feet, or, if I could not reach both, bring down one, and deliver as I would an ordinary footling case.

Feet and breech presentations occur so often, that it is hardly required that I should call the attention of the Society to them. They occur about every thirtieth labor. I have the satisfaction of stating to you that I never lost an infant in my practice that presented either head or breech. Some authors state that the mortality in these cases will average one-third of them. I manage them by letting them alone until the feet and breech are born, then ascertain if the cord is being compressed, if the pulsation is weak and feeble, I bring down a coil of it to prevent compression, then make traction on the infant by folding a towel around it and using gentle force; if the face is not coming down opposite the sacrum and perineum, I turn the

child so it will, then, as soon as I can, I introduce my finger in the mouth and bring it into the world as soon as consistently practicable. I failed to mention that the arms should be brought down over the face, and in doing this great care should be used or we may fracture the humerus. An accident of this kind once occurred to me. RAMSBOTHAM quotes several cases of this kind, and cautions us in regard to it, but, notwithstanding his caution, it occurred to me. I immediately dressed the little arm, and in ten days it was as well as ever.

Great excitement was caused in our village, a year or two ago, by a physician having care of a lady, who was so unfortunate as to have a footling case. It was stated that he let it hang by the neck, undelivered, half an hour, and in this position had to have counsel to help him out of the difficulty. Difficulties may occur with any of us; but is an obstetrician justified in such a case not to do better than this, where the lady is well formed and the child of ordinary size?

I reiterate that no man nor woman should engage in the practice of midwifery until he or she has just and clear views of the process of parturition, and is freely prepared to act in all cases, either simple or complicated. And I believe it to be our bounden duty to expose all men or women who are not competent to take charge of such cases. If we attempt to practice a profession and are not well informed in it, we are responsible to our fellow-men and to our God—and shall we by our taciturnity become the accomplices, aiders, and abettors of their ignorance?

I have seen but few cases of face presentation in my own practice, or in the practice of others. Eight or ten years ago, I met with a case, in consultation with Dr. CLARK, of Galva. Our only treatment was *nature* and *time*, and the woman got along well, and, so far as I remember, had a living child.

On the 29th Sept., last, I was sent for to see Mrs. B., residing four miles from this place. I arrived about 9 o'clock A.M. She had been sick since 12 or 1 o'clock. On examination, I diagnosed face presentation, with the forehead presenting at the symphysis pubis, and the chin at the sacrum. The os was fully

open, but no advancement was made, yet the woman had frequent and severe pains. It was the seventh labor, and she had always, but once, been confined and delivered without the assistance of a physician, and this time she had attempted the same, but the woman in attendance readily yielded the case when she came to the conclusion that the presentation was *preternatural.* The uterus was so firmly contracted I could not make any change in its situation, and, therefore, was obliged to apply the forceps, which I did with great difficulty, but finally succeeded, and delivered her of a very large dead child. Had the child been reversed, with the forehead resting on the perineum and the chin at the pubis, I think it could have been born without instrumental interference, but as it was, it was an impossibility.

Face presentations, as a general rule, should be left to nature, they only require, in the language of Dr. GOOCH, "more time, more labor pains, and more patience than a natural presentation."

By transverse or cross births, we mean when any other part presents except the head, feet, or breech. A peculiar presentation occurred to me during the month of April, of which I herewith hand you an ambrotype, taken from a plate in RAMSBOTAAM'S Process of Parturition, (plate No. 127.) The process of ambrotyping or photographing, as you all know, reverses the order of the picture, and instead of finding the vertex in the cavity of the left ilium it was in the right; instead of the foot being down in the vagina, as here represented, the toes, up to the instep, had fixed themselves over the arch of the pubis, while the heel alone presented in the vagina; while, at the same time, the vertex occupied the iliac fossa. The hand was presenting as you here see, and the umbilical cord likewise; but I did not give them time to protrude out of the pelvis. I was called to attend the case at 8 o'clock A.M. She had been taken in labor about 12 o'clock in the morning, the first symptom being a gush of the liquor amnii, and this continued dribbling away until some time after my arrival. Cross births are usually characterized by irregular and defective pains, and in

this case it was so. When first called, the uterus was but little open, and it was all I could do to reach the presenting part. I diagnosed presentation of the elbow. I remained with her several hours, pains very light indeed, and everything given to her to increase the pains and cause the opening of the os uteri sickened her so much that I ceased giving anything, and waited the natural dilatation, holding myself in readiness to act when the proper time arrived. About 5 P.M., the pains grew a little harder and the os was sufficiently open to introduce two or three fingers; then, I could prosecute my discoveries farther, and found it as first described. I found the umbilical cord was pulseless and, of course, the infant dead. I tried to reach the foot that did not present, but found it impossible. I then released the foot from its engagement over the arch of the symphysis pubis, and, by making intermittent tractions with the hand hold of the foot, succeeded in making the head sweep around from the right ilium, then to the fundus, and down the sacrum, by turning the face in that position after I got hold of the second foot, and had delivered it as far as the umbilicus.

Transverse presentations do not seem to be any more frequent among the poor than among those more pleasantly situated in life, and in affluent circumstances, though the contrary view has been advocated by some obstetricians. I know of no symptoms that would lead us to suspect a transverse presentation before the commencement of labor, after this commences, then, upon examination, if we find the part protruding, like a small oval tumor in the shape of the fingers of a glove, we may suspect something wrong. Another prominent symptom is a cessation, or nearly so, of pains, after the discharge of the liquor amnii. Digital examination alone is the only symptom that positively tells us that we are having a preternatural presentation to contend with. Now, should we be ignorant or incompetent, not knowing what to do, one of three things must happen: either the womb, by its continued action, would become ruptured; or the woman would very soon sink from exhaustion; or, lastly, the child, if small and the pelvis of the woman sufficiently large, might be forced down in a doubled state, and the

violence usually done in such a case would usually result in the death of the mother.

No one, probably, condemns *meddlesome midwifery* more than I do; yet without the proper knowledge to know how to act and when to act, in this branch of our science, is criminal, and he who sticks his shingle up, advertising himself as a physician, should not only be an M.D. from some reputable school, but should possess good *common sense*, with a good tact for practicing this branch of our profession, for such troubles may present themselves to us at any time.

I will notice, very briefly, a case or two of placenta prævia. Eight or ten years ago, a man consulted me in regard to his wife. Five or six months had elapsed since her conception, and she was occasionally having spells of flowing. I told him my opinion was that the placenta was presenting, and the flowing would continue off and on until her confinement, and I impressed upon him the importance of having a physician in attendance at the first symptom she had of labor; but instead of complying with my instructions on this point, when the labor commenced they sent for her mother-in-law, who was an ignorant *virago* midwife. She officiated until she was entirely satisfied that she could accomplish nothing, and the woman would die from hemorrhage if undelivered. I was sent for in great haste, found the placenta presenting, and the umbilical cord prolapsed and out of the vagina ten or twelve inches. The child's belly was presenting, the head in the right and the feet in the left hypogastric region. She was flowing quite profusely, and, as the placenta was nearly detached, I immediately delivered it. I then immediately introduced my hand, grasped the feet, and delivered her in ten minutes time. The hemorrhage was profuse, though not sufficiently so to do any serious harm to the system, and she made a happy recovery. The child, of course, was dead, as I found the cord pulseless when I first entered the room.

Another case of placenta prævia came under my care in January, 1866. I was also consulted in this case, three or four months previous to her *accouchement*, in consequence of hemor-

rhage occurring from time to time. I diagnosed the case correctly, and told them frankly what they might expect, and enjoined them carefully to send for a physician at the first symptom of labor. They complied with my instructions, and I was sent for in good time. Every pain brought a gush of blood. I waited until the os uteri was dilated the size of a dollar. The parts were soft and quite dilatable; the placenta was immediately over the os. I administered chloroform, then partly ruptured the placenta and partly pushed it aside, introduced my hand in the womb, grasped the feet, and delivered my patient in fifteen or twenty minutes time of a dead infant. Not an unfavorable symptom presented after her *accouchement*, and on the first day of this month I delivered her of a fine, healthy boy, which came all right.

It is a very easy matter to turn and deliver, if we can select the right time and the right patient; but we rarely have this choice. As one author states, it is as easy to turn a child in utero, as it is a fish in a pail of water; but, in order to do it, we must be master of our business, and have the right time and the right kind of a pelvis. Select the time, if possible, before there is serious hemorrhage; do not wait too long for dilatation of the os, for if you do, your patient will sink from the loss of blood. If we can operate before the membranes are ruptured, we will find very little difficulty; the arm will prevent the liquor amnii from passing off, and the hand in the womb will find the infant floating in the water, which can be turned with ease and facility.

It is very rare, indeed, that both mother and child are saved in cases of placenta prævia; I have never had the good fortune to save both, neither have I ever had the misfortune to lose the mother, an occurrence which frequently happens to those poorly skilled in obstetrics, and occasionally to those who claim to be adepts in our profession.

Abortions occur so often, and are so frequently perplexing to the physician, that I would not do justice, even in this short report, were I not to treat of them in brief. The division of abortion, as divided by authors, into two stages, calling it abor-

tion if it occurs before the sixth month, and premature labor if after that time, is, in my opinion, superfluous, and should be disregarded.

By criminal abortion, I mean where any drastic medicine is given to produce it, or where any instrument is introduced in os tincæ, breaking down the membranes, and soon bringing on abortion or premature labor. This is certainly a crime of great magnitude, when not produced to save the life of a woman. We are not authorized to operate on any case, without it is known that the woman has a deformed or contracted pelvis, and cannot be delivered without the assistance of instruments, and the child delivered dead. Every woman aborting, either naturally or from instrumental aid, runs a heavy risk of losing her life; and yet, physicians, knowing this great danger, will, for a few *paltry dollars*, yield to the solicitations of the gentler sex, or be urged on by the seducer, to perform this unnatural and infernal crime; a crime not second to the greatest in the catalogue of medical jurisprudence, but equal with murder in its first degree. In a word, we, as members of a great and good profession, should openly proclaim to the public that we denounce this great evil, and plainly let those persons know, who seek our aid in such cases, that neither money, love, high and aristrocratic standing in society, or anything else can bribe us to commit this crime.

It matters but little, whether a woman aborts from natural or unnatural causes, the danger is about equally great, without the abortionist has given some severe drastic emenagogue or cathartic, thereby setting up inflammatory action in the womb and bowels, producing metro-peritonitis; or has used some sharp, penetrating instrument, and done violence to the os uteri, thence extending into the womb, and setting up the same active symptoms. A physician who is a gentleman, a moralist, or a Christian, will not permit such a stain to tarnish his character, whether known to the public, or alone to himself and his victim.

Our treatment of abortion, in ordinary cases, is well known to you all. If there is little or no flowing, keep your patient

quietly in bed, and administer a mild opiate; when the pains have ceased, give some mild laxative, such as ol. ricini, sul. mag., or citrate of mag. But if we are not so successful as to check the premature action of the womb, then it is our services may become urgently demanded; we may have to use all our skill to check inordinate flowing, subue inflammatory action, etc. The lives of all women are very much jeopardized in cases of abortions; oftentimes the placenta is left undelivered for days, and sometimes for weeks, causing spells of hemorrhage, reducing the system from day to day, until anæmia and death is the result. One case, in particular, I will call your attention to. It occurred in my practice in the fall of 1865. The lady aborted six weeks before the placenta was removed. No physician was with her at the time and she thought the afterbirth came at the same time the fœtus did, but time proved the contrary. Hemorrhage continued from time to time, until it was delivered. I removed it with a pair of placenta forceps. My patient was perfectly anæmic, with a pulse of 140 to 150, and nearly unconscious at the the time I operated; but when I removed it, the bleeding ceased, and, under large doses of carb. ammo., quinine, and brandy, she rallied, and is now in good health.

I was sent for to see a patient in Stark County, in the winter of 1863, who was, or rather had been, under the care of an eclectic physician. Her husband informed me that she had miscarried, and he said the doctor told him the "afterbirth had come away all right." When I saw her, she seemed weak, pale, and excited, and had a pulse of 140; bowels tender and a little tympanitic. I made a digital examination, and found the placenta undelivered. I rendered the necessary aid, and soon my patient was convalescing. *What do you think of a physician who tells his patient she is delivered, and leaves her in this situation to die?*

One or two more cases of abortion, and I am through. A few years ago, I was sent for, in consultation, to see a case in Knox County. When I examined my patient, the attending physician told me that she had aborted at two months. On

applying my hand over the pubic and hypogastric regions, I found the uterine tumor as large as after an ordinary labor. Why this unusual enlargement after an abortion? In due time the womb assumed its natural size and the woman promptly recovered.

Another very similar case I recently saw with Dr. SMILEY, of this place. A very near friend of his was taken with menorrhagia, which continued quite profuse from time to time, until the woman became anæmic and very prostrate. This condition lasted some two or three weeks. She was wakeful and irritable, and the doctor very properly became alarmed at her situation and requested me to call and see her. I did so, and on applying my hand to the bowels I found the uterine tumor filling the left hypogastric region full. The doctor thought she had not aborted at all, but considered it an unusual case of menorrhagia. If she had aborted, it could not have been more than from four to six weeks, as she had missed her menstrual flow but once. My first thought was that she had an ovarian tumor, and I interrogated the doctor closely in regard to its duration; he told me it could not possibly have existed more than two weeks. I then made a digital examination, placed my finger at the os tincæ as a guide, and introduced a bougie, fully four inches. In a day or two, she passed some membranous flakes, proving that she had aborted, as these were the membranes from around the fœtus. Strict quietude, recumbent position, warm fomentations, detergent washes, mild opiates, and tonics, were the means used for her restoration, and she is now able to sit up some, and the uterine tumor is rapidly diminishing. I consider these two cases as anomalous, and worthy a place in any report.

I would do injustice to myself and this Society, were I not to touch upon *puerperal peritonitis*, especially if I am able to report anything favorable in its treatment. Puerperal fever, or more properly styled puerperal peritonitis, is the great terror of the lying-in room. It is the disease at all times to be dreaded after ordinary, tedious, or instrumental labors. No physician performs his duty, in the lying-in chamber, after the

labor is over, until he gives the patient and nurse strict and explicit orders in regard to her care, diet, etc. A little carelessness in diet, or the admission of drafts of cold air, or premature sitting up after delivery, may, at any time, develop this disease; especially will it do so when the malady is prevailing as an epidemic.

The disease, or rather its treatment, has become the opprobrium of medicine, and that, too, very properly. And why? Because, I think I can safely say, that nineteen patients out of every twenty, affected with *genuine* puerperal peritonitis, die in from two or three days to a fortnight after the attack. The old treatment of ARMSTRONG, so highly insisted on by him, *viz.:* free and repeated venesection, does not succeed in my hands, and I think any of you who have had patients with this disease, and have tried the heroic plan of ARMSTRONG, have come to the same conclusion that I have. This disease is so very fatal, that I think but very few patients recover under any treatment. I am of opinion that many cases reported as cured, especially in hospitals, are not genuine puerperal peritonitis, but merely metritis, connected with a high grade of fever. When this disease is once well developed, as known by a pulse running up from 120 to 160; frequent vomitings of a greenish fluid; retention of urine; extreme tenderness over the uterus, extending over the bowels; swelled and tympanitic state of the abdomen; lochia and milk checked or entirely suppressed, then it is we know a case of puerperal peritonitis. In its treatment, I would place calomel and the other mercurials along with blood-letting, *viz.:*—lay them aside for the treatment of some other diseases, for they are certainly not demanded in this disease.

I have the pleasure and gratification to communicate to you my treatment in two cases of well-marked puerperal peritonitis, during the present winter, both of whom recovered—one after a miscarriage of six months, the placenta being retained; and the other a natural primapara. Both cases had all the urgent symptoms I have mentioned, and my prognosis was, of course, unfavorable. My treatment was simple and, consequently, can

be briefly stated:—It consisted in giving full portions of sul. morphine every three hours, to quiet the system and also the pain, and Norwood's tinct. ver. viride in drops, four to seven every three hours, to quiet the excessive action of the heart; thus alternating the two remedies every hour and a-half. When the stomach was much disturbed, I gave aqua cinnamomum or the essence of cinnamon in water. To quench the thirst, gave ice in small pellicles, orange, and lemonade, etc. In the active stage, I moved the bowels every three or four days by enema; I disapprove of drastics any time in the disease; and would only give ol. ricini and ol. terebinth. in the declining stage, and then when only imperatively demanded. Warm fomentations of hops should be constantly applied during the more active stage, to be succeeded in the stage of decline by a large epispastic, covering the whole abdomen. As soon as the stomach would retain nourishment, I gave milk, wine-whey, wine, etc., and at a still later period, I gave sugar-coated quinine pills as a tonic, every three or four hours. In the *main*, the above is my treatment, with very little variation, condensed in as few words as I am able to.

All of which is respectfully submitted.

ARTICLE XXX.

CASE OF HEMORRHAGE AND ABORTION.

By D. B. TRIMBLE, M.D., Chicago.

I was called, on the night of March 18th, to attend a lady on the West Side, and found her suffering from acute spasmodic action of the womb, accompanied by severe uterine hemorrhage. I was informed that she had had a convulsion, but this had passed away before my arrival. On the evening of the 13th, while sitting with her feet elevated on a stool or chair, writing, she had a sudden gush of blood from the uterus, unaccompanied by pain. The hemorrhage continued at intervals, and the pains

increased, but, her husband being absent from the city, I was not sent for until the night above mentioned. In reply to the question whether her catamenia had been regular, I was assured that they had been. The discharge was very profuse, and her suffering, though abated, was severe. Her pulse, however, was not much depressed. Prescribed the mineral acids, and a solution of morphine, and locally, a strong and cold solution of Alum; the recumbent position, and perfect rest

On the *19th*, considerably relieved; hemorrhage lessened.

21st. So much better that I thought it unnecessary to see her again, and recommending a continuance of the recumbent posture, and, to some extent, the medicines, for a few days, I left her.

On Saturday, the *23d*, she took a walk, which brought on a return of the hemorrhage, and on Monday, *25th*, I was again sent for, and found her suffering very acutely, and flooding severely.

From her husband, who was now at home, I obtained a history of the case. In December last, she had passed her regular menstrual period by about ten days, when she became anxious about her condition, and wished the catamenia restored. She had had one child, and, by her own account, after a very difficult and dangerous labor, and therefore wished to avoid a recurrence of the same trouble. Her husband proposed sending for me, but she objected, on the ground that I would probably not do for her what she desired (and this supposition was correct). She therefore sent for a neighboring homœopath, who gave her a preparation of savin, which, in the course of a week, brought on severe hemorrhage and suffering, and she supposed she was relieved of her burthen. Every three weeks, subsequently, until I saw her, she had a return of the menstrua in great and increasing abundance, and with increased suffering. This fact was a further confirmation of her views, that she was not pregnant, and this circumstance made me, also, incline to the same opinion; but, from the continued firmness of her pulse, the liquid character of the discharge and its abundance, and the severity of her pains, I was inclined to the opinion that,

if not caused by pregnancy, there was probably a polypoid or other tumor in the womb. I therefore requested permission to make a tactile examination; but there was no evidence of any tumor; the os uteri was in a normal condition, closed, and not tender. This theory was, therefore, not confirmed; though not certainly disproved.

On the *26th*, under the above-mentioned and other remedies, she again appeared much relieved, and I did not see her again until the *28th*, when she was still apparently improving.

On the *29th*, though the hemmorrhage still continued to some extent, she was comfortable; but on the night of the *29th*, I was again called, when I found her deluged with blood; suffering much; paler, but still with a pulse of much force. The heart's action, however, began to be affected, and, at times, there was considerable intermission in its pulsations. I now resorted to the tampon, saturated with alum water, which appeared to control the hemorrhage for that night and the next day.

On the *30th*, found her comfortable, cheerful, and without hemorrhage. In the course of this week, had given her a combination of alum and nutmeg (a favorite remedy of Dr. CHAS. D. MEIGS), fld. ext. ergot, etc.

On the *31st*, comparatively comfortable; but some return of hemorrhage. Removed the tampon, and introduced a very soft sponge, saturated with a solution of tannic acid. Hemorrhage continued, however, but the blood was now clotted- Upon re-examination, found the os more tumefied and tender, and the uterus itself enlarged and lower; and placing my hand over the pubic region, found the uterus considerably enlarged and firm. My diagnosis was still uncertain. Was the enlargement of the womb owing to pregnancy, to a tumor, or to coagulated blood accumulating in the womb, and retained by its rigid mouth? In my difficulty, I laid the case before an experienced medical friend, who thought, with me, that it was very improbable she was pregnant, and suggested that, from the increasing tenderness and enlargement, it might be sub-acute hysteritis.

April 1st and 2d. Quiet; hemorrhage and pain sometimes nearly ceasing, then returning, but not so freely.

3d. Took with me a strong sol. of ext. atrop. belladon., with the intention of applying it to the rigid os tincæ, so as to produce dilation; and when this was effected, it would probably enable me to determine the cause, whether from coagula, a tumor, or a fœtus; and, if proper, I would then administer the ergot until the uterine contractions were sufficient to expel its contents. I called at 11 o'clock A.M., and found her so comfortable, and enjoying the company of a lady friend, that I delayed its application until my next visit. At 2 o'clock P.M., however, I was sent for in great haste, with the assertion that she was flooding to death. I found her in great pain, though intermitting; on examination per vagina, that there was but little hemorrhage, and that the os was slightly dilated. Saturated the sponge with sol. belladon. and reapplied it. Seeing the great anxiety of the husband, and, in fact, being anxious myself, I requested that Dr. JONES (of Peoria Street), who lived near by, should be sent for. By the time he had arrived, the os had become sufficiently dilated to admit the insertion of a finger, and, after a careful examination, Dr. Jones believed there was a fœtus; and, after again examining her, I no longer felt any doubt. The doctor concurred in my proposal to use the belladonna and ergot, and left me. This was about $3\frac{1}{2}$ o'clock P.M. I at once administered f℥ss. of the ergot, and reapplied the belladonna. Every half-hour, I administered the former, until she had taken f℥ 4 or 5. The pains became more regular and urgent; but still the os relaxed very slowly. It was a breech presentation, and after frequent and prolonged efforts, the body and limbs were born, but the head remained, and the pains ceased. After waiting ten or fifteen minutes, I made an effort to renew the contractions and bring away the head, but owing to the rigid condition of the os uteri, (which contracted around the neck,) I could introduce but one finger. I made gentle traction by the body, but very carefully, fearing a separation of the head. After a time, what I feared, actually occurred, and introducing my finger, found the head had receded so that I could not reach it. I now introduced a pair of small abortion forceps, and though I could touch the head,

could not grasp it. I then grasped the placenta, and, finding that it did not adhere, removed it entire. After again making efforts to get the head between the blades of the forceps, without success, I gradually dilated the os uteri until I could get two fingers into it, and passing them up until I reached the head, bent them over it, and brought it away. The patient recuperated more rapidly than I expected, and is now well.

When we take into consideration the apparently successful effort to produce abortion in December; and the regular, though frequent and profuse return of the menstrua, up to March 13th; and the absence of the general signs of pregnancy (which had been apparent in her first); I think I am excusable in failing in my diagnosis. I have occasionally known persons to have a slight monthly discharge during pregnancy, sometimes to the period of parturition, but never before, so great a discharge, without destroying and dislodging the fœtus.

ARTICLE XXXI.

VALEDICTORY ADDRESS.

By R. E. McVEY, M.D., President of the Morgan County Medical Society.

Delivered at the Anniversary Meeting, May 9th, 1867.

GENTLEMEN:—One year ago a few of us met in the court house in this place for the purpose of organizing a medical society, that the physicians of Morgan County might become workers in that great medical organization of our country which extends from the shores of the Atlantic to the Pacific, and from the great lakes to the Gulf of Mexico.

What is the object of this vast organization, with its thousands of auxilliaries? It is a philanthropic one, to minister to mankind in affliction, and that we may the better be enabled to do this, to collate and disseminate such information as each may acquire in his practice throughout the profession—to open new leads in the mines of science and extract unrevealed

virtues from the ores already dug.

In this organization the man of limited attainments is permitted to share the ripe fruit gathered by the scientific research and experience of those of eminent culture, and I am proud to know that in this association we can point to some bright, particular stars, whose lights wane not by the side of any in the medical firmament. Great, good, and learned men, whose influence is not confined by professional boundaries, but permeates society at large; and I hope it will not be regarded as an invidious allusion if I here mention the name of our own David, who has wrestled so successfully with the Goliahs of deformities.

It is by the contact of mind with mind that our intellects are burnished, and the privilege we here enjoy of discussing the various medical questions of the day, may be instrumental in developing new theories, in enlarging the area of thought, and fit us to grapple with error in its many forms; and from the garners of the medical harvest aid us in separating the chaff from the wheat, that we may accept only that which is good, rejecting all that is bad. Here every man comes bringing his sheaves—some full of the brambles of dogmatism, others bristling with the thistles of crude and ill-digested theories, but still more heavy only with the golden grain of ripe experience. It is from these organizations that the materials are gathered for our medical journals. They are the carriers of our thoughts to the people, and should be found in the hands of every respectable practioner of medicine. The influence of our assosciations would be circumscribed indeed, were it not for those brethren of that profession, who hold in their hands tne lightnings of the press, that mighty engine of civilization without which science to-day would still wear the monk's garb of the dark ages, and be as powerless for good as Prometheus bound.

Until the ingenious inventor of types opened the highway of thought throughout the world—mind chafed as a fretted prisoner within cloister walls, and was manacled with the rusty chains of uncertain traditions—but now mounted upon a chariot

as glorious as that of Ezekiel's vision, with the lightning as a servant and out-rider, it is moving grandly to the accomplishment of man's high destiny. To our profession and through us to the whole human family, this man of the press has come with healing in his wings, and it is but fitting that on all proper occasions we should acknowledge the obligation.

Gentlemen, our profession has not yet reached the zenith of its glory. That is a goal situated on the outer boundaries of that promontory where human reason exhausted, shall lie down to slake its thirst in springs which have their source in another world than ours. But day by day, the great work advances, and by the patient toil and combined efforts of the profession, we may, at least approximate that perfection which it is not given humanity to attain.

To the studious and energetic, inquiry will continue to yield her trophies until the science of life shall be reduced to simple laws. But the labor before us is well calculated to discourage the most hopeful and enthusiastic practioner of medicine.

We have not only the natural weaknesses and tendency of the body to decay to combat, for these we might provide with an accuracy and success almost equal to that with which the builder props and strengthens the crumbling edifice—but we have to contend with flames of consuming appetites, undermining habits of luxury, and the thousand and one forms of vice with which the human frame is ever being assailed, and which have their origin in moral infirmities, which it is not our province to correct.

Only at the millenium will the complications of our profession be resolved into plain reasoning from purely natural causes to their effects.

But if our work is endless, our record is nevertheless sure, and by every dictate of human sympathy we are impelled to increased exertion in behalf our fellow-man.

Let us neglect, then, none of the means within our reach for the advancement of the profession which we have so nearly at heart, and the honor and fame of which we have voluntarily taken upon ourselves to sustain.

Our responsibility is very great, and I should regard that physician recreant, indeed to the important trust, who should fail to contribute to the maintenance, usefulness and interests of these county associations.

We are all satisfied that the short life of our society has been productive of much good, yet how much more prolific of beneficient results may it be made in the future. Will each member here to-day, commemorating its first annivesary, pledge himself to aid in extending its influence, that our next annual meeting may exhibit signs of prosperity even more marked than at present.

In recalling the meetings of the past, I remember with pleasure the spirit of harmony which ever prevailed, and doubt not the discussions have been quite as profitable to all as to myself; and I here take occasion to express my sense of gratitude to all who have participated in those meetings as essayists and speakers for suggestions which will not soon be forgotten.

In vacating the chair I feel that I am making room for a more able occupant, one who will guide your deliberations with a more skillful hand. I have endeavored to discharge my duties faithfully, but I now feel that my experience in parliamentary rules but illy fitted me for the position. Your kindness in elevating me to the presidency, however, has been greatly exceeded by your manly forbearance with all my mistakes. Is it necessary for me to thank you now for this courtesy? I have mentally done so a thousand times while sitting as your presiding officer.

I shall never cease to prize the honor which your votes have given me—that of being your first president.

To GRADUATES OF CHICAGO MEDICAL COLLEGE.—Those graduates of Chicago Medical College who have not received a copy of the Constitution and By-Laws of the Alumni Association, recently formed, will please send in their address to the Sec'y,

S. A. McWILLIAMS,

166 State Street, Chicago.

SEVENTEENTH ANNUAL MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY—SPRINGFIELD, JUNE 4TH AND 5TH, 1867.

The members of the Illinois State Medical Society assembled in Annual Session, in the Representatives' Hall, June 4th, 1867, at 10 o'clock A.M.

Dr. F. B. Haller, of Vandalia, President, called the Society to order, and introduced the Rev. Albert Hale, who opened the exercises with prayer.

Dr. N. Wright, Chairman of the Committee of Arrangements, then extended a cordial and appropriate welcome to the members of the Society; after which, the Assistant-Secretary, Dr. P. H. Bailhache, reported the following list of members and delegates as present:—

Drs. L. T. Hewins and T. N. Booe, of Loda, and D. L. Jewett, of Watseka, Iroquois Co.

Dr. C. Goodbrake, Clinton, DeWitt Co.

Drs. H. H. Roman, H. C. Barrell, P. J. Wardner, Justus Townsend, B. F. Stephenson, A. Trapp, Lyman B. Slater, H. B. Buck, Geo. T. Allen, B. M. Griffith, P. H. Bailhache, and H. K. Palmer, of Springfield, and N. Wright, of Chatham, Sangamon Co.

Dr. G. W. Albin, Neoga, Cumberland Co.

Drs. A. Niles, Joseph Robbins, Louis Watson, and J. T. Wilson, of Quincy, Adams Co.

Dr. F. H. VanEaton, Carrollton, Greene Co.

" M. F. DeWitt, Whitehall, "

" F. B. Haller, Vandalia, Fayette Co.

Drs. E. W. Moore, S. T. Trowbridge, J. A. W. Hostetler, and A. McBride, of Decatur, and H. N. Clark, of Niantic, Macon Co.

Dr. M. Reese, Abingdon, Knox Co.

Drs. D. Prince, G. R. Bibb, and W. S. Edgar, of Jacksonville, and John W. Craig, of Arcadia, Morgan Co.

Dr. J. T. Frazer, Howard's Point, Fayette Co.

Drs. D. W. Young and E. H. Gale, of Aurora, Kane Co.

Dr. D. S. Jenks, Plano, Kendall Co.

Drs. W. A. Knox, A. Fisher, N. S. Davis, H. A. Johnson, E. Powell, J. H. Hollister, J. Adams Allen, Moses Gunn, J. S. Hildreth, E. L. Holmes, R. N. Isham, F. O. Earle, DeLaskie Miller, C. T. Fenn, E. Ingals, and Frank W. Rielly, Chicago, Cook Co.

Dr. T. D. Washburn, Hillsboro, Montgomery Co.

Drs. E. P. Cook and J. C. Corbus, Mendota, LaSalle Co.

Dr. J. F. Potts, Peoria, Peoria Co.

" J. Little, Leroy, McLean Co.

" H. Noble, Heyworth, McLean Co.

Drs. S. W. Noble, D. O. Crist, D. L, Crist, and T. F. Worrell, Bloomington, McLean Co.

Dr. S. B. McGlumphy, Lincoln, Logan Co.

" J. S. Whitmire, Metamora, Woodford Co.

" O. Q. Herrick, Kansas, Edgar Co.

" H. W. Davis, Paris, Edgar Co.

Drs. J. O. Hamilton, J. L. White, and G. C. Lyon, Jerseyville, Jersey Co.

Dr. Wm. Massie, Grandview, Edgar Co.

" W. R. Fox, Wilmington, Will Co.

Drs. W. H. Veatch and John Ewing, Pawnee, Sangamon Co.

Dr. H. S. Hurd, Galesburg, Knox Co.

" B. K. Shurtleff, Amboy, Lee Co.

ELECTION OF MEMBERS.

The following were also elected permanent members, by unanimous vote:—

Drs. John M. West, Williamsville.
Thos. Hickman, Vandalia, Fayette Co.
B. H. Cheeny, Joliet, Will Co.
Chas. Kerr, Pawnee, Sangamon Co.
J. Sweeney, Normal, McLean Co.
A. L. Kimber, Waverly, Morgan Co.
J. P. Mathews, Carlinville, Macoupin Co.
C. L. Hart, Irving, Montgomery Co.
John Walker, Berlin, Sangamon Co.

Henry W. Boyd, Alton, Madison Co.
J. L. Millier, Springfield, Sangamon Co.
J. C. Ross, Lincoln, Logan Co.
John W. Lawrence, Carbondale, Jackson Co.
G. H. Peebles, Williamsville.

A recess of 10 minutes was taken, to enable the delegates from each county represented to select one of their own number, to constitute a committee, for nominating officers and standing committees for the ensuing year. On being called to order, the following members had been selected to constitute the Nominating Committee:—

Drs. W. S. Edgar, of Morgan Co.
Louis Watson, of Adams Co.
D. W. Young, of Kane Co.
D. S. Jenks, of Kendall Co.
J. C. Corbus, of LaSalle Co.
C. Goodbrake, of DeWitt Co.
J. F. Potts, of Peoria Co.
J. T. Frazer, of Fayette Co.
R. N. Isham, of Cook Co.
J. S. Whitmire, of Woodford Co.
M. Reese, of Knox Co.
H. B. Buck, of Sangamon Co.
S. T. Trowbridge, of Macon Co.
T. F. Worrell, of McLean Co.
G. W. Albin, of Cumberland Co.
O. Q. Herrick, of Edgar Co.
D. L. Jewett, of Iroquois Co.
S. B. McGlumphy, of Logan Co.
T. D. Washburn, of Montgomery Co.
J. L. White, of Jersey Co.
H. W. Boyd, of Madison Co.
F. H. VanEaton, of Greene Co.
B. K. Shurtleff, of Lee Co.

The Secretary read a letter from Dr. Taggert, of Cairo, explaining his inability to attend the present meeting. Also, a letter from Dr. R. G. Bogue, of Chicago, member of the

Special Committee on Deformities of the Spine and Joints, explaining the non-appearance of a report by the Committee, and asking further time, with the addition of Dr. F. O. Earle, of Chicago, to the Committee.

On motion, the request of Dr. Bogue was granted, and the Committee continued another year.

Dr. H. A. Johnson moved that the amendment to the Constitution, proposed last year, *granting to permanent members the right to vote, the same as delegates*, be taken from the table and adopted. The motion was sustained by a vote of 24 yeas and 1 nay; the members of the Nominating Committee being absent from the room.

Dr. DeLaskie Miller moved the adoption of a pending amendment to the Constitution, fixing the regular annual meetings of this Society on the *Third Tuesday in May*, in each year. The amendment was adopted by a vote of 32 yeas, 0 nays.

Dr. J. Adams Allen, Chairman of the Standing Committee on Practical Medicine and Epidemic Diseases, stated that the report consisted chiefly of two papers; one on Cholera, as it prevailed in Chicago in the summer of 1866, written by Dr. Marsh, of Chicago; another on Diseases in the Interior of the State, by Dr. L. T. Hewins, of Loda.

The first of these papers was made the special order for consideration at 2 o'clock P.M.

Dr. C. Goodbrake, Chairman of the Nominating Committee, submitted the following report:—

For President—Dr. S. W. Noble, of Bloomington.

For Vice-Presidents—Drs. D. W. Young, of Aurora, and O. Q. Herrick, of Kansas.

For Treasurer—Dr. J. H. Hollister, of Chicago.

For Next Place of Meeting—Quincy.

On motion of Dr. H. A. Johnson, the report of the Committee was accepted, and the several candidates for office unanimously elected.

The President appointed Drs. Johnson, Miller, and Moore a committee to conduct the newly-elected officers to their places.

Drs. Noble and Young, on being conducted to their places,

thanked the Society for the honor conferred on them; and the retiring President, Dr. Haller, delivered a short, but appropriate address.

The annual assessment for the year 1867, was fixed at $3.

Dr. H. A. Johnson then moved a reconsideration of the vote adopting the constitutional amendment relating to voting by permanent members.

The motion was carried, and, after a brief discussion by Drs. Johnson, Watson, Moore, Niles, Young, Worrell, and Davis, the amendment was again adopted, by a unanimous vote of 49 ayes, 0 nays.

On motion, the Society adjourned to 2 o'clock P.M.

AFTERNOON SESSION.

The Society was called to order at 2 o'clock P.M., Dr. S. W. Noble, President, in the chair.

Dr. J. Robbins, of Quincy, moved to amend the minutes of the last annual meeting, by inserting the following in the place of the fifth paragraph from the bottom of page 5 of the printed transactions:—

"A paper was presented from the Adams County Medical Society, remonstrating against the admission of the Quincy Medical Society to representation in this Society, which was referred to a special committee, consisting of S. T. Trowbridge, H. Noble, and J. M. Steele.

"The special committee, to whom was referred the communication from the Adams County Medical Society, reported the following resolution, which was adopted:—

"*Resolved*, That the so-called Quincy Medical Society is not entitled to representation in the Illinois State Medical Society."

After some discussion, the amendment proposed by Dr. Robbins was adopted, and the minutes, as amended, approved.

The special order of business being the report of the Standing Committee on Practical Medicine, Dr. J. A. Allen, Chairman of that Committee, read a paper on the Prevalence of Cholera in Chicago during the year 1866, written by Dr. W. R. Marsh of Chicago. The report was founded almost exclu-

sively on the records of the Health-Officer of Chicago, and after some discussion by Drs. N. S. Davis, H. A. Johnson, and D. Prince, it was, on motion of Dr. P. H. Bailhache, referred to the Committee of Publication.

An invitation was received from the Mayor and city authorities of Springfield, to visit Oak Ridge Cemetery at 4 o'clock P.M., which was accepted.

Dr. J. Adams Allen presented the following resolution:—

Resolved, That the moderate use of ripe, but not stale or decaying, fruits is not objectionable as tending to produce cholera, but, rather, conducive to the preservation of health during the hot season.

This elicited a discussion, which was participated in by Drs. Edgar, Allen, Johnson, and Prince. While the latter was speaking, the hour fixed for the excursion to Oak Ridge arrived, and the further consideration of the subject was postponed until 9 o'clock Wednesday morning.

Notice was given that a public lecture would be given in the Hall, by Dr. J. Adams Allen, of Chicago, at 8 o'clock that evening.

The Society then adjourned to 9 o'clock A.M. of Wednesday.

WEDNESDAY, JUNE 5TH.

The Society was called to order at 9 o'clock A.M., Dr. S. W. Noble, President, in the chair.

Dr. N. Wright, in behalf of the Committee of Arrangements, reported the following list of volunteer communications, with a recommendation that they be heard in order after the reports of committees.

Tracings of the Pulse, and Shygmograph for making the same, prepared by H. A. Johnson, M.D., Prof. Chicago Med. College.

Experimental Inquiries concerning the Physiological Effects of Alcoholic Drinks. By N. S. Davis, M.D., Prof. Chicago Med. College.

Treatment of Paniform Cornea, occurring with Granular Eye-Lids. By Joseph S. Hildreth, M.D., Chicago.

Pocket Obstetric Forceps, with a description of the same. By Addison Niles, M.D., of Quincy.

A Case of Hydrophobia, with Treatment. By T. R. Higgins, M.D., of Vandalia.

Deformities of the Spine treated by Mechanical Appliances. By F. O. Earle, M.D., of Chicago.

Dr. J. H. Hollister offered the two following resolutions, which were unanimously adopted.—

Resolved, That the Treasurer report to the Publishing Committee, at the close of each annual meeting, the names of all those members who have been present at any one or more of the annual meetings during the *five* preceding years; or who have paid one or more annual assessments during that time; or have reported physical disability, preventing attendance at said meetings. And that only the names so reported be published in the Transactions for that year.

Resolved, That the Treasurer be instructed to communicate each year with all the members whose names appear in the Transactions, who have not paid their annual dues, and solicit payment of the same.

Dr. David Prince offered the following, which was adopted unanimously:—

Resolved, That it is with deep regret that the members of this Society contemplate the death of Daniel Brainard, M.D., Professor of Surgery in Rush Medical College; and that we unanimously accord to his memory the high appreciation due to the name of one who, by his talents and industry, has added to the sum of human knowledge, thus placing the world, as well as the profession, under obligations to perpetuate the memory of his contributions.

Dr. T. F. Worrell moved that a committee of five be appointed as a judicial committee to investigate the charges against Dr. Addison Niles, of Quincy. The motion was adopted, and the President appointed Drs. David Prince, E. W. Moore, DeLaskie Miller, O. Q. Herrick, and L. T. Hewins as said committee. And at a subsequent stage of the proceedings, the names of Drs. H. A. Johnson and Edwin Powell were added to the committee.

Dr. F. B. Haller. of Vandalia, offered the following resolution:—

Resolved, That we, the members of the State Medical Society, recommend that the several medical schools in this State adopt the plan of teaching recommended by the recent teachers' convention, in Cincinnati, as soon as practicable; and that we will send our pupils to the school or schools adopting such plan.

Dr. J. Adams Allen moved that the consideration of the subject be postponed until the reports from standing and special committees had been received and disposed of. Which motion was adopted.

Dr. C. Goodbrake, in behalf of the Committee on Nominations, reported the following as standing and special committees to report at the next annual meeting of the Society:—

Committee on Practical Medicine and Epidemics—Drs. H. A. Johnson, of Chicago; E. P. Cook, of Mendota; and Wm. Massey, of Grandview.

Committee on Surgery—Drs. E. Powell, of Chicago; Geo. T. Allen of Springfield; and S. T. Trowbridge, of Decatur.

Committee on Obstetrics—Drs. E. W. Moore, of Decatur; G. W. Albin, of Neoga; and W. A. Elder, of Bloomington.

Committee on Drugs and Medicines—Drs. Henry Wing, of Collinsville; W. S. Edgar, of Jacksonville; and D. S. Jenks, of Plano.

Committee on Ophthalmology—Drs. H. H. Roman, of Springfield; Joseph S. Hildreth, and E. L. Holmes, of Chicago.

Committee on the Causes, Pathology, and Treatment of Cholera—Dr. N. S. Davis, of Chicago.

Committee on the Language of the Pulse—Dr. J. H. Hollister, of Chicago.

Committee on Fracture of Lower End of Radius—Dr. David Prince, of Jacksonville.

Committee on Conservatism in the use of Remedial Agents—Dr. E. Ingals, of Chicago.

On motion of Dr. H. A. Johnson, Quincy was designated as the place for holding the next annual meeting of the State Medical Society.

On motion, the report of the Nominating Committee was adopted.

The resolution offered by Dr. J. A. Allen, in relation to the use of fruit during seasons when cholera is prevalent, being the special order, was taken up; Dr. Prince having the floor.

Dr. Prince advocated the resolution, and gave some interesting facts relating to the efforts to suppress the use of fruits in St. Louis during a former prevalence of cholera in that city.

Dr. W. S. Edgar thought some fruits might be used safely, while others were dangerous. Hence, he moved to amend the resolution by inserting the words "some fruits," which was lost.

Dr. E. Ingals offered the following as a substitute for the resolution of Dr. Allen, but subsequently modified his motion, so as to make it an additional resolution:—

"*Resolved*, That the diet that is ordinarily most wholesome is the proper diet to be taken during an epidemic of cholera."

After further discussion by Drs. T. F. Worrell, D. W. Young, and H. A. Johnson, Dr. N. S. Davis moved to amend the original resolution, by inserting after the word "fruits," the words "taken at the ordinary meals." He fully endorsed the position that good, ripe fruits not only did not predispose to attacks of cholera, but were positively beneficial as articles of food. But, like all other articles of food, they should be taken only at proper intervals; and, as physicians, they should not adopt any resolution that might be so construed as to encourage the eating of even ripe fruit at any and all hours of the day. The amendment was accepted without opposition.

Dr. H. A. Johnson thought it injudicious to adopt any resolution on the subject, and moved to lay the resolutions on the table. The motion was lost, by 29 yeas, 34 nays.

The resolution offered by Dr. Allen, and amended, was then adopted as follows:—

Resolved, That the moderate use of ripe, but not stale or decayed, fruits, taken at the ordinary meals, is not objectionable, as tending to produce cholera, but, rather, conducive to the preservation of health during the hot season.

The resolution offered by Dr. E. Ingals, was also adopted.

Dr. J. H. Hollister offered the following resolution, which was adopted:—

Resoleed, That a special committee of three be appointed upon the subject of Necrology, having reference to the proper preservation of statistical and other memorial records of its deceased members.

Dr. Hollister also proposed such an alteration of the Constitution as would make the Committee on Necrology a *standing* committee. Laid on the table until the next annual meeting.

Dr. J. S. Whitmire offered the following, which was adopted:

Resolved, That it now be made a permanent rule of this Society, that no member shall be permitted to speak a second time on any one subject, without the special permission of this Society.

Dr. E. W. Moore moved that Art. 4 of the Constitution be so amended that the term of office of the President and Vice-Presidents shall commence at the opening of the next annual meeting after their election. Laid over, under the rules.

The hearing of reports of standing committees was then resumed, and Dr. L. T. Hewins, one of the Committee on Practical Medicine, read an interesting report, which was accepted and referred to the Committee on Publication.

Dr. DeLaskie Miller, Chairman of the Committee on Obstetrics, presented an abstract of his report, which, on motion, was accepted, and the report referred to the Committee on Publication.

Dr. H. W. Davis presented a lengthy report, embodying the results of his surgical practice during his recent service in the army; which was accepted without reading and referred to the Committee on Publication.

Dr. Geo. T. Allen presented a short paper on the Radical Cure of Inguinal Hernia, with the instruments required for the operation. The paper was referred to the Committee on Publication.

Dr. Trowbridge, Chairman of the Committee appointed at the last annual meeting, to urge the enactment of suitable laws by the State Legislature, reported as follows:—

To the Honorable President and Members of the Illinois State Medical Society:—

The committee, to whom was entrusted the draft for the afore-mentioned law, would beg leave to report:—

That prior to the session of the General Assembly, ending the current year, there was a correspondence opened with several legislators whose opinions were favorable to the scheme, and the draft submitted to this body one year ago, at Decatur, by the Macon County Medical Society, was sent to them. There was, therefore, a very favorable element in quite a number of intelligent men of both brancues of the Legislature anxious for the passage of such an act.

About ten days after the assembling of the Legislature, a quorum of this committee met in Springfield and consulted as to a plan of procedure, and determined that the bill should make its appearance in the Senate first. It was, therefore, presented to that body by its able and zealous friend, the Hon. W. H. Cheney, of McLean Co. We had a preference that it should be referred—because of its pertinence—to the Committee on Education, which preference met the approval of the honorable senator presenting it. We consulted the members of the Committee on Education, in part, concerning the prospects of the passage of the bill, and found no opposition to it after they saw fully what it assumed to correct.

Starting it thus in the Senate, and feeling favorably impressed with the encouraging assurances which we received from various influential senators, we next consulted with many members of the House of Representatives concerning its passage through that body, should it succeed in passing through the Senate, and for a time felt sanguine of success, from the promises we received. But the golden pitcher was broken at the *fountain.* The Committee on Education tabled the bill in their room, and thus the thing was *still-born,* or rather still *unborn,* and so remained. Our honorable senator attempted to take it from the table that it might be recommitted, but it failed even in that.

There was so determined a spirit in the House that some-

thing of the kind should pass, that a bill was prosented to that body, bearing features widely differing from those which this committee was ordered to present, and considered by its friends as more conservative, which, although not killed in the committee rooms, was in the House.

It is, however, flattering, to reflect that the necessity of such a law was entertained by the Senate and House, by a larger number of men than any similar bill had ever been before. We therefore hope and expect that the intelligence of our lawmakers will so grow that to pass a statute possessing the plain-faced merit of the one which we presented will, some day soon, be the accomplishment of our continued and persistent effort. We therefore recommend that the enterprise be continued, by the appointment of a more weighty and politically influential lobbying committee.

S. T. TROWBRIDGE, M.D.
GEO. T. ALLEN, M.D.
P. H. BAILHACHE, M.D.

Dr. W. S. Edgar offered the following, which was adopted:—

Resolved, That a committee of five be appointed, to report a memorial and law, to be presented to the Legislature at its next regular session, for the better regulation of the practice of medicine in the State; said committee to report the result of their labors at the next meeting of the Society.

Dr. N. S. Davis, Permanent Secretary, in behalf of the Committee of Publication, presented the following report:—

When the undersigned commenced his term of office as Secretary, more than ten years since, the treasury of this Society was considerably in debt for the publication of the Transactions of the preceding year. And the receipts into the treasury have not been sufficient to liquidate the indebtedness and pay the full current expenses of publication. Hence, three alternatives have recurred to your committee at each returning year, namely:—first, to omit the publication of the Transactions annually, for want of funds; second, to publish on the individual credit of the committee, with an annually increasing balance against the treasury, which by this time would have

amounted to not less than $1000; or, third, to reduce the cost of publication to the amount actually in the treasury, or nearly so. The only possible mode of accomplishing the latter alternative was, to first print the record of proceedings, reports, and papers constituting the Transactions, in the medical periodical under the control of the Secretary, and furnish extra sheets enough to make up the required number of volumes of Transactions for the use of the Society, at the cost of simple presswork, paper, and binding. In this way, from $100 to $150 could be saved to the treasury annually.

Regarding the publication of the reports and papers read before the Society, in the medical periodicals as, in itself, a benefit, by giving them a wider circulatien in the profession, your committee did not hesitate to adopt the third alternative named. This course met the uniform approval of the Society until the meeting in Decatur, June, 1867. At that meeting, which is the only one that your Secretary has failed to attend during his term of office, this subject was referred to a committee, whose report stated that it was *not* desirable to have the Transactions published in the medical journals, and recommended that 100 copies be published, independently, for the members of the Society. This report was laid on the table, without any action by the Society. Hence, the Committee of Publication were left without either an approval of their past work, or any instructions for the future.

As soon after the last meeting as the material for the Transactions had been placed in the hands of the committee, it was found that the independent publication of 100 copies of the Transactions would cost at least $260, while there was, at that time, a balance of only $100 in the treasury. In this dilemma, your committee resorted to the same practice as in preceding years, by which they reduced the cost of publication $111, distributed copies of the Transactions to all members who had paid the annual assessment early in November, and left the treasury free from embarassment. It is to be hoped that the increased number of members in attendance on the present annual meeting will so increase the receipts of the Treasurer, that the

Transactions of this meeting can be immediately sent to press, as an independent publication. But if, as has heretofore been the case, the amount should be found insufficient, your publication committee should not be left in the embarassing position of having neither the positive approval nor the instructions of the Society.

Immediately after the last annual meeting, the full record of proceedings was furnished for publication in both the medical journals published in our State. Subsequently, written notices were sent by the Secretary to the chairman of each committee charged with the duty of making a report at the next annual meeting. Certificates of appointment were also sent to each delegate appointed to attend the meeting of the American Medical Association for 1867.

As the duties devolving on the Publication Committee depend, for their execution, mainly upon the Permanent Secretary, the undersigned would respectfully request the Society to appoint his successor whenever they deem it advisable to do so.

Respectfully submitted, in behalf of the Com. of Publication.

N. S. DAVIS, *Permanent Secretary.*

The report was accepted, and a vote of thanks unanimously tendered to Dr. Davis, for his services in superintending the publication of the Transactions of the Society.

Dr. J. H. Hollister presented the annual report of the Treasurer, showing a balance of $2 or $3 in the treasury.

The report was accepted and referred to the Auditing Committee.

On motion, the Society adjourned to 2 o'clock P.M.

AFTERNOON SESSION—SECOND DAY.

The meeting was called to order at 2 o'clock P.M., Dr. S. W. Noble in the chair.

Dr. D. Prince, Chairman of the Judicial Committee, made the following report, which was accepted and the committee discharged:—

Whereas, The claim of Dr. Addison Niles to membership in the Illinois State Medical Society rests upon the fact of his

having been received as a delegate from a society which the Illinois State Medical Society has declared not entitled to representation; therefore,

Resolved, That the charges are not regularly before the Society.

The committee would further recommend, that inasmuch as the Quincy Medical Society was not heard in its defence last year, that the question of its right to representation be referred to a new committee, with instructions to report at the next meeting of this Society.

DAVID PRINCE,
DELASKIE MILLER,
H. A. JOHNSON,
E. POWELL,
E. W. MOORE,
} *Committee.*

Dr. J. Robbins, of Quincy, offered the following as an amendment to the report:—

Whereas, The claim of Dr. Addison Niles to membership in this Society rests alone on the fact that he was delegated thereto by a body (the so-called Quincy Medical Society) which this Society has declared not to be entitled to representation; therefore,

Resolved, That the name of Dr. Addison Niles be stricken from the roll of members.

On motion of Dr. H. Noble, the amendment was laid on the table. The report of the Committee was adopted.

Dr. C. Goodbrake, in behalf of the Nominating Committee, made the following recommendations of committees:—

For Local Secretary—Dr. J. Robbins, of Quincy.

For Committee of Arrangements—Drs. Louis Watson, J. N. Ralston, and J. T. Wilson, of Quincy; M. Shepherd, of Payson; and W. M. Landon, of Burton.

For Committee on Necrology—Drs. J. H. Hollister, of Chicago; F. B. Haller, of Vandalia; and W. S. Edgar, of Jacksonville.

For Committee on Legislation—Drs. S. T. Trowbridge, of Decatur; H. A. Johnson, of Chicago; F. B. Haller, of Van-

dalia; W. S. Edgar, of Jacksonville; and H. Noble, of Heyworth.

On Cholera-Infantum—Dr. DeLaskie Miller, of Chicago.

On motion, the report was accepted, and its recommendations adopted.

Dr. H. A. Johnson offered the following, which was adopted:

Resolved, That the Committee on Legislation be instructed to prepare and present to the next regular session of the State Legislature, a bill legalizing human dissections, and that each member of this Society be requested to urge upon our legislators the importance of such legal provisions, as a protection to public and private cemeteries, as well as for the promotion of medical and surgical education.

Dr. D. W. Young moved that the thanks of the Society be tendered to Dr. J. Adams Allen, for his interesting public address last evening, and that he be requested to furnish a copy of the same to the Publication Committee, which motion was carried in the affirmative.

Dr. P. Bailhache, Chairman of the Committee on Drugs and Medicines, presented an interesting report, which was accepted and referred to the Committee of Publication.

Dr. David Prince read an abstract of his report on Plastic Surgery, which was accepted, and the report referred to the Committee of Publication.

Dr. H. A. Johnson offered the following, which was adopted:

Resolved, That Drs. J. W. Freer and Edmund Andrews be appointed by this Society, delegates to the International Congress, to be held in Paris, during the month of August next.

Dr. E. L. Holmes, Special Committee on Ophthalmology, presented a brief report, which was accepted and referred to the Committee of Publication.

Dr. T. D. Fitch, Chairman of the Committee on Specialties and Medical Advertising, presented a report, which was read by the Secretary and referred to the Committee of Publication.

Dr. D. Prince, from the same committee, presented a minority report, which was also referred to the Committee of Publication.

Dr. J. S. Hildreth read an interesting paper on Granular Conjunctivitis with Paniform Cornea, which was accepted and referred to the Committee of Publication.

Dr. H. A. Johnson presented some interesting illustrations of the pulse lines, as written by the sphygmograph, together with the instrument. The communication was referred to the Publication Committee.

Dr. N. S. Davis read a paper on the Physiological Effects of Alcoholic Drinks, which elicited an interesting discussion, and was referred to the Committee of Publication.

On motion of Dr. D. W. Young, the Society proceeded to elect the following members as delegates to the next annual meeting of the American Medical Association:—

Drs. T. F. Worrell, of Bloomington.
J. H. Hollister, of Chicago.
C. Goodbrake, of Clinton.
Jos. Robbins, of Quincy.
W. S. Edgar, of Jacksonville.
H. B. Buck, of Springfield.
F. B. Haller, of Vandalia.
Moses Gunn, of Chicago.
J. C. Corbus, of LaSalle.
J. T. Wilson, of Quincy.
H. Noble, of Heyworth.
N. Wright, of Chatham.
L. T. Hewins, of Loda.
H. W. Davis, of Paris.
B. K. Shurtleff, of Amboy.
J. M. Steele of Grandview.
E. H. Gale, of Aurora.

Dr. P. H. Bailhache reported that the Treasurer's report has been examined by the Auditing Committee, and found correct.

Dr. J. S. Hildreth offered the following, which was referred to the Committee on Legislation:—

Resolved, That a committee of three be appointed, to report at the next annual meeting of this Society, upon the necessity

of an act of the Legislature defining the duties, responsibilities, and liabilities of Druggists and Pharmaceutists.

On motion, the Society adjourned, until 7 o'clock P.M.

EVENING SESSION—SECOND DAY.

The Society was called to order by the President at 7 o'clock P.M.

Dr. F. O. Earle, of Chicago, read a paper on the Mechanical Treatment of Angular Curvature of the Spine, and exhibited apparatus. The paper was accepted and referred to the Committee on Publication.

Dr. Addison Niles presented a specimen of Pocket Midwifery Forceps, with a description of the same, which was referred to the Committee of Publication.

Dr. Higgins, of Vandalia, presented the history of a Case of Hydrophobia, which was read by Dr. F. B. Haller, and elicited some discussion. The thanks of the Society were tendered to Dr. Higgins, with the request that the case be published in some medical journal.

Dr. H. A. Johnson offered the following resolution, which was adopted:—

Resolved, That this Society urge upon the municipal authorities of all our cities and larger towns the importance of a careful record of births, and a uniform registration of deaths and their causes, using for this purpose such necrological tables as have been generally adopted in this country and Europe.

Dr. D. Prince offered the following, which was adopted:—

Resolved, That the Committee on Legislation be instructed to consider the propriety of urging upon the Legislature the passage of a law requiring railroad companies, and other incorporated companies using machinery, to be responsible for the expense of board, nursing, medical supplies, and medical attendance necessary for their employees during the process of recovery, not exceeding six months, in cases of injuries received in the performance of their duties.

The resolution relating to medical education, previously offered by Dr. F. B. Haller, and deferred until the reports of

committees, etc., had been disposed of, was now taken up, and after some remarks by Dr. Haller, it was, on motion of Dr. J. S. Whitmire, referred to a committee of three, to report on the same at the next annual meeting of the Society. Drs. F. B. Haller, S. T. Trowbridge, and H. Noble were appointed said committee.

The President also appointed the following committee to examine and report on the status of the Quincy Medical Society: Drs. C. Goodbrake, E. L. Holmes, and D. O. Crist.

The following resolutions were unanimously adopted:—

Resolved, That the thanks of this Society be and are hereby tendered to the retiring officers, for their faithful performance of their respective duties.

Resolved, That the thanks of this Society are hereby tendered to the profession, citizens, and authorities of Springfield, and also to the Committee of Arrangements, for the provision made for the accommodation and entertainment of the Society at this meeting.

Resolved, That the thanks of the Society be tendered to Hon. Sharon Tyndale, the Hon. Secretary of State, for his courtesy in granting the use of the Hall of Representatives for the sessions of the State Medical Society.

Resolved, That the thanks of the Society be tendered to the Superintendents of the Illinois Central R.R., the Chicago, Alton and St. Louis R.R., and the Toledo, Wabash, and Great Western R.R., for their favors of commutation tickets to members of the Society attending this meeting.

On motion, the Society adjourned *sine die*.

N. S. DAVIS, *Permanent Sec'y.*
P. H. BAILHACHE, *Ass't-Sec'y.*

Selections.

CASE OF TREPHINING THE SPINE; DEATH FROM PYÆMIA; CLINICAL REMARKS.

The following is one of very great surgical interest. The question of the advisability of trephining the spine after injuries—an operation recently advocated by Dr. Brown Séquard—was largely discussed at a recent meeting of the Medical and Chirurgical Society, after the reading of a paper by Mr. Berkley Hill. (See *American Journal of Medical Sciences*, April, 1867, p. 538.) For the following report, we are indebted to Mr. Tracey:

J. J., aged 28, while somewhat tipsy, fell off a cart on his right buttock, and was unable to stand or move his lower extremities from that moment. The case was first seen by Mr. Mauder on August 31, three days after the occurrence of the accident, when the patient exhibited more or less loss of sensation below the level of the nipples, and loss of muscular power in the trunk and lower extremities, with constipation and retention of urine. The right buttock was bruised and excoriated, as also was the integument over the angles of the right mid-dorsal region. On examining the spine, the spinous process of the seventh cervical vertebra appeared to be most unusually prominent, and the attempt to move this (though no mobility was appreciable,) gave pain in the region, and also along the back of the patient's right arm. The patient stated that this prominence had existed a long time, and had been caused by carrying bags of sand upon his neck. Respiration was performed chiefly by the diaphragm. The patient was placed upon a water-bed, and beyond attention to his bladder and to the bruise on the buttock, which was gradually converted into a sore, little in the shape of treatment was requisite; but the symptoms gradually changed—incontinence of feces and urine supervened, and the loss of sensation as high as the nipples became complete. He grew weak.

On September 18 he was the subject of a severe cough, accompanied by difficult and copious expiration. He breathed more easily when lying over somewhat on his left side. The urine was highly ammoniacal, and loaded with muco-pus. Dr. Davies was consulted as to the condition of the chest, and advised mist oleosa and brandy. Pulse intermittent.

19th.—After consultation with Dr. Ramskill and Mr. Little, Mr. Maunder determined to cut down upon the seat of and

explore the injury. Insensibility and loss of volition existed as high as the nipple; the skin over the upper part of the right scapula and along the back of the right arm as far as the elbow, was tender on pressure, and an attempt to move the spine of the seventh cervical vertebra caused pain also. Irritating the feet caused reflex action. Incontinence of feces and of urine as before. The grasp of the right hand was weaker than that of the left, which was strong.

At the operation Mr. Maunder said he was induced to interfere surgically for certain reasons—the physical condition of the spine led him to think that the seventh cervical vertebra, in part or entirely, had been displaced backwards and a little upwards, thus compressing the cord between its body and the laminæ of the first doral. He thought that the cord had not been crushed beyond repair at the time of accident, because there was not from the first a total loss of sensation, but this had gradually become complete by reason of the continued pressure causing loss of temporary function. The operation which he proposed to perform did not, he thought, in itself, entail great risk to life, and was justified by the urgency of the symptoms.

Operation.—The patient being on his face, and under the influence of chloroform, (which he bore well,) an incision about three inches in length in the mesian line exposed the spines of the first snd second dorsal vertebræ, and the knife kept close to these readily allowed the muscles to be separated, so as to expose the laminæ also. The muscles were ecchymosed to some extedt. Free bleeding occurred, but no ligature was requisite. The spines of these vertebræ were now cut off at their bases, and the corresponding laminæ were removed by the trephine and bone forceps. The bleeding having ceased, the sheath of the cord was seen at the bottom of the wound, but nothing abormal could be either seen or felt in it. On comparing the interval between the sheath of the cord opposite the laminæ of the third dorsal vertebra, and between it and the laminæ of the last cervical, the space was decidedly greater in the former than in the latter region; but this difference was not sufficient to induce the operator to remove the laminæ of the seventh cervical. The wound was dressed with water-dressing, and the patient returned to bed. Half a grain of extract of belladona was ordered thrice daily.

For some few hours after the operation the patient vomited, and when he had recovered from this, said his legs felt warmer than before the operation. Pain in the arm persisted for two

or three days. Cough diminished greatly. On the fourth day subsequent to the operation, he was ordered one-twelfth of a grain of strychnine, thrice daily, and in a day or two reflex action was more readily excited in the lower extremities. On the 29th the cough again became very distressing, and he expired suddenly on October 2.

At a *post mortem* conducted by Dr. Sutton, the medulla spinalis was found more or less pulped opposite the lower border of the seventh cervical vertebra, and this, too, was displaced slightly forward, and its right transverse process was broken. There was not the least trace of inflammatory action in or about the cord and its membranes, but there was ample evidence of pyæmia in the great viscera. The bladder was quite healthy, a condition which Mr. Maunder believed to be due to the attention bestowed upon that viscus by Mr. Salt, one of the dressers. Mr. Maunder suggested that the first attack of cough (before the operation) was also due to the blood-poisoning originating in the bed-sore.—*Med. Times and Gaz.*, Feb. 23, 1867; *Med. News and Library*, Philadelphia.

Book Notices.

Elements of Human Anatomy; General, Descriptive, and Practical. By T. G. Richardson, M.D., Prof. of Anatomy in the Medical Department of the University of Louisania. Second Edition. Carefully Revised, and Illustrated by nearly 300 engravings. Philadelphia: J. B. Lippincott & Co. 1867.

This is a full-sized octavo volume of 671 pages; published in excellent style. Its illustrations are well executed, and, as a whole, it constitutes one of the best text-books on anatomy that we have seen.

For sale by S. C. Griggs & Co., 41 Lake Street, Chicago. Price $6.00.

Notes on the Origin, Nature, Prevention, and Treatment of Asiatic Cholera. By John C. Peters, M.D. Second Edi-

tion, with an Appendix. New York: D. Van Nostrand, 192 Broadway. 1867.

This is a neatly printed duodecimo volume of 200 pages. It is written in good style; and the title-page gives a good idea of the scope of its contents.

Editorial.

Illinois State Medical Society.—In the present number of the Examiner, will be found a full record of the proceedings of our State Medical Society, at its recent meeting in Springfield. There was a larger number of members in attendance than at any previous meeting for eight or ten years. It was characterized by harmony, strict attention to appropriate business, and a spirit of active investigation. The reports and papers presented were more numerous and interesting than usual, but the time allowed for their investigation was too short.

For the first time in several years, the Treasury was reported as not in debt, and money enough was received to ensure an early publication of the *Transactions* for 1867. We hope those members who presented reports or papers, which were referred to the Committee on Publication, and retained them in their own hands, will forward them to the Secretary without delay. By so doing, they will greatly facilitate an early publication.

Medical Education.—We are gratified to observe that the proposed revision of our system of medical education, as adopted by the Convention of Medical College Delegates, recently held at Cincinnati, is receiving the cordial sanction of nearly all our exchanges. The editor of the *Boston Medical and Surgical Journal*, in a recent number, strongly endorses the action of the convention, but expresses regret that the "Elements of the Natural Sciences" should have been stricken out of the Section

relating to Preliminary Education. Had he looked a little closer, he would have been spared this regret; for he would have discovered that though the words were stricken out at one stage of the meeting, they were restored again before the close of the session. That Section, as it was finally adopted, unanimously, by the convention, is as follows:—

"That every student applying for matriculation in a medical college, shall be required to show, either by satisfactory certficate, or by a direct examination by a committee of the Faculty, that he possesses a thorough knowledge of the common English branches of education, including the first series of Mathematics and the elements of the Natural Sciences, and a sufficient knowledge of Greek and Latin to understand the technical terms of the profession; and that the certificates presented or the results of the examination thus required, be regularly filed as a part of the records of each medical college."

We hope to see the whole plan of revision, as recommended by the convention, *practically* adopted by the colleges and the profession in 1868.

The Quarterly Journal of Psychological Medicine and Medical Jurisprudence.—It is announced that a new periodical, with the above title, will be issued on the 1st of July, in the City of New York. It is to be edited by William A. Hammond, M.D.

Obituary.—The daily papers have just announced the death of Geo. K. Amerman, M.D., of this city. He died at Marcellus, New York, whither he had gone on account of failing health. Dr. Amerman was well known in this city as an active and intelligent member of the profession, and his early death will be universally regretted. He died from consumption, in the 35th year of his age.

ANNUAL ANNOUNCEMENT.—We have received the Ninth Annual Announcement of Chicago Medical College for the Lecture Term of 1867–8 As the announcement will reach our readers at the same time with this number of the EXAMINER, we need do no more than call attention to it. We hope every physician and student into whose hands it may fall will give it a careful perusal. It contains not one word of false pretension, but represents an institution which, for completeness in its system of instruction, the number of its faculty, and its clinical advantages, has no superior in this country.

CORRESPONDENTS.—We have received, too late for insertion in the present number, the proceedings of the Morgan County Medical Society, the Adams County Medical Society, and some other papers. They will appear in our next issue.

DR. BAKER BROWN OF LONDON.—The celebrated Dr. BAKER BROWN has recently been expelled from the Obstetrical Society of London, for unprofessional conduct, in connection with his operations of clitoridectomy for the cure of epilepsy.

WANTED.—Three copies of the *Transactions of the Illinois State Medical Society* for the years 1853 and 1855. These copies are wanted to complete the files kept for the use of the Society. Hence, any reader who may have one or both of the above numbers on hand, and does not wish to keep a full record, will confer a great favor by sending the same to the undersigned, Permanent Secretary of the Society.

N. S. DAVIS,
166 State St., Chicago.

Money Receipts from May 27th to June 26th.—Drs. B. Wilson, Chambersburg, $3; V. L. Hurlbut, Chicago, Ill., 3; P. S. Macdonald, Chicago, Ill., 3; J. T. Frazer, Howard's Point, Ill., 3; D. O. Crist, Bloomington, Ill., 3; C. R. Parke, Bloomington, Ill., 3; T. Nicols, Peshtigo, Ill., 3; H. L. Smith, Orland, Ind., 3; W. E. Peters, Nine Eagles, Iowa, 1 50.

Mortality Report for the Month of May:—

CAUSES OF DEATH.

Abscess,	1	Epilepsy,	1
Accidents,	11	Erysipelas,	1
Apoplexy,	2	Fever, Typhoid,	5
Croup,	3	Fever, Lungs,	6
Cancer,	3	Fever, Scarlet,	5
Consumption,	32	Fever, Ship,	1
Cholera Morbus,	1	Fever, Typhus,	2
Convulsions,	39	Fever, Gall,	1
Canker Sore Mouth,	1	Fever, Nervous,	1
Congestive Chills,	2	Fever, Puerperal,	1
Congestion of Brain,	2	Fever, Congestive,	1
Congestion of Bowels,	2	Inflammation of Lungs,	10
Congestion of Lungs,	2	Inflammation of Brain,	1
Congestion,	1	Inflammation of Heart,	1
Childbirth,	1	Measles,	3
Colic,	1	Nephritis,	1
Diphtheria,	7	Old Age,	5
Drowned,	6	Phthisis,	2
Disease of Heart,	5	Poisoning,	1
Disease of Lungs,	3	Pneumonia,	1
Disease of Brain,	1	Small-Pox,	3
Disease of Liver,	1	Stillborn,	5
Debility,	3	Spasms,	2
Dropsy,	7	Suicide,	1
Diabetes,	2	Teething,	5
Dysentery,	2	Whooping-Cough,	11
Decline,	1	Unknown,	21
Delirium Tremens,	1		

Total,	241
Total number last year for the month of May,	275
Total number during the month of April,	278
Total number during the month of May,	241
Decrease,	37

DIVISIONS OF THE CITY.

North,	56	South,	83
West,	111	Total,	240
Unknown,	1		

Ages of the Deceased.—Under 5 years, 108; over 5 and under 10 years, 9; over 10 and under 20, 9; over 20 and under 28, 35; over 30 and under 40, 30; over 40 and under 50, 17; over 50 and under 60, 13; over 60 and under 70, 12; over 70 and under 80, 5; over 80 and under 90, 3; over 90 and under 100, 1; unknown, 6. Total, 241.

Chicago,	105	France,	1	Sweden,	6
Austria,	1	Germany,	25	Scotland,	2
United States,	40	Ireland,	40	Unknown,	2
Canada,	4	Isle of Man,	1		
England,	7	Norway,	4	Total,	241

BELLEVUE HOSPITAL
MEDICAL COLLEGE,

CITY OF NEW YORK.

SESSIONS OF 1867–1868.

THE COLLEGIATE YEAR in this Institution embraces a Preliminary Autumnal Ter the Regular Winter Session, and a Summer Session.

THE PRELIMINARY AUTUMNAL TERM for 1867-68, will commence on Wednesday, September 18, 1867, and continue until the opening of the Regular Session. During this term, instruction, consisting of didactic lectures on special subjects and daily clinical lectures, will be given, as heretofore, exclusively by members of the Faculty. Students designing to attend the Regular Session are strongly recommended to attend during the Preliminary Term, but attendance during the latter is not required.

THE REGULAR SESSION will commence on Wednesday, October 16, and end about the 1st of March 1868.

THE SUMMER SESSION for 1868 will commence on the second Wednesday in March, and continue twelve weeks. This term will embrace courses of didactic lectures by the members of the Faculty of the Summer Session, together with clinical lectures at Bellevue Hospital, and the Charity Hospital, Blackwell's Island, and the daily recitations. Lectures will also be given by members of the College Faculty.

FACULTY OF THE COLLEGE.

JAMES S. WOOD. M. D. Professor of Operative Surgery and Surgical Pathology.
ISAAC E. TAYLOR, M.D., Emeritus Professor of Obstetrics and Diseases of Women and Children, President.
FRANK H. HAMILTON, M.D., Prof. of Millitary Surgery, Fractures and Dislocations, and the Principles of Surgery.
LEWIS A. SAYRE, M.D., Professor of Orthopedic Surgery.
ALEXANDER B. MOTT, M.D., Professor of Surgical Anatomy.
W. H. VAN BUREN, M.D., Professor of Diseases of the Genito-Urinary System.
GEORGE T. ELLIOT, M.D., } Prof. of Obstetrics and the Diseases of Women and Children.
FORDYCE BARKER, M.D., }
BENJAMIN W. McCREADY, M.D., Professor of Materia Medica and Therapvutics.
STEPHEN SMITH, M.D., Professor of Descriptive and Comparative Anatomy.
AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine.
R. OGDEN DOREMUS, M.D. Professor of Chemistry and Toxicology.
AUSTIN FLINT. Jr., M.D., Professor of Physiology and Microscopy.
WILLIAM A. HAMMOND, M. D. Professor of Diseases of the Mind and Nervous System.
N. R, Mosley, M.D., Demonstrator of Anatomy.
J. W. Southack, Jr., M.D., Assistant Demonstrator of Anatomy.

FACULTY OF THE SUMMER SESSION.

HENRY D. NOYES, M.D., Prof., of Ophthalmology, and Dean of the Summer Faculty.
J. LOUIS SMITH, M.D., Professor of Morbid Anatomy.
FOSTER SWIFT, M.D., Professor of Diseases of the Skin.
Prof. WM. H. VAN BUREN, M.D., Lecturer on Diseases of the Genito-Urinarp System.
Prof. R. OGDEN DOREMUS, M.D., Lecturer on Animal Chemistry.
Prof. AUSTIN FLINT, Jr., M.D., Lecturer on Microscopical Anatomy.
Prof. GEORGE T. ELLIOT, M.D., Lecturer on the Diseases of Children.
Prof. WILLIAM A. HAMMOND, M.D., Lecturer on Diseases of the Nervous System.

A distinctive feature of the method of instruction in this College, is the union of clinical and didactic teaching. All the lectures are given within the Hospital grounds. During the Regular Winter Session, in addition to four didactic lectures on every week-day, except Saturday, two or three hours are daily allotted to clinical instruction. The union of clinical and didactic teaching will also be carried out in the Summer Session, nearly all of the teachers in this Faculty being physicians and surgeons in the great Charity Hospital on Blackwell's Island.

FEES FOR THE REGULAR SESSION.

Fees for tickets to all the lectures during the Preliminary and Regular Term including clinical lectures	$140 00
Tickets for any of the several departments may be taken out separately.	
Matriculation fee	5 00
Demonstrator's ticket (including material for dissection)	10 00
Graduation fee	30 00

Students who have attended two full courses in other accredited schools receive all the tickets for $70, exclusive of the Matriculation fee. Students who have attended two full courses in this College, or after one full course in this College having previously at-

THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M.D., EDITOR.

VOL. VIII. AUGUST, 1867. NO. 8.

Original Contributions.

SUPPLEMENTAL REPORT FROM THE COMMITTEE OF PRACTICAL MEDICINE.

BY. L. T. HEWINS, Loda, Ill.

Read to the Illinois State Medical Society, June, 1867.

By special request of the chairman of your committee on practical medicine, it has become my duty to prepare a report especially for the eastern and southern portions of the State.

The constitutional provisions for our Society make it lawful that reference should be made, "as occasion requires, to medical topography," and, by implication, to the geography and geology of those portions of country that are within range of our investigations, as well as note "what changes have taken place in this State in the management of individual diseases; report the progress of epidemics and the character of prevailing diseases in special localities."

In order to present the subjects to be treated in this report with proper clearness, (particularly so when we come to treat of diseases in special localities,) it seems legitimate to refer briefly, if we may without being thought tedious, to the geography, geology, and topography of that part of our State to which this paper refers, comprising, as it does, an important part of that great hydrographical basin, known as the Mississippi Valley, extending from eastern to western mountain range.

The State of Illinois lies between 37° and 42° 30′ north latitude, and between 87° 30′ and 91° 40′ west longitude, embracing about 55,500 square miles, resembling, somewhat, an irregular triangle, the apex of which rests at the junction of the Ohio and Mississippi rivers, in latitude 37° north, and at an altitude of only about 300 feet above the Gulf of Mexico. Extending north, towards the base of the triangle, the face of the country is generally undulating; and, as it stretches out between its eastern and western boundaries, it becomes a vast prairie of table lands, reaching an altitude of more than 500 feet above the confluence of the Ohio and Mississippi rivers, beautifully interspersed with groves and belts of timber, especially along the streams that are tributaries to our natural boundaries. The general inclination of this vast plane is from north to south, as is indicated by the course of its rivers.

These table lands form, as it were, a dividing ridge through the middle and southern portions of the State, so that the waters shed off both towards the east and south-east, and west and south-west, emptying the accumulating waters in the State into the Mississippi from the western slope, and into the Ohio and Wabash from the eastern slope.

The upper waters of most of the streams which are northern and western tributaries of the Ohio and Wabash have their origin in ponds, or small lakes, and extensive marsh lands, and, not unfrequently, marshes are developed in the bottoms along the course of the streams, which, in many places, are wide, subject to spring and summer inundations, leaving them *bayous*, marshes, and ponds, abounding in drift and other foul deposits. The fertility of these bottoms and the luxuriant growth of vegetation are coextensive with the miasm which overshadows this vast belt of country, extending, as they frequently do, for miles in width from either shore of the stream. Eminently true is this of the Wabash bottoms. The water in these bayous and ponds dries up during hot weather in summer, and the drift and foul deposits from spring floods decay.

Surrounded, as the inhabitants of these table lands and bottoms are, with foul and mephitic air, their princely summer

harvests are succeeded by autumnal fevers, both mild and malignant.

Among the more important streams meriting notice, in this section of country, are Big Bay Creek, Saline, Little Wabash, Embarrass, and Vermilion, with their tributaries, emptying their waters into the Wabash and Ohio.

This whole eastern and southern slope, to which reference is had, presents, in a geological point of view, so far as known, the sandstone formation, overlaid by coal and limestone treassures, which occasionally crop out in the breaks of the hills and near the bottoms along the water courses, as may be seen in Vermillion, Kankakee, LaSalle, and other counties. The upper beds of this whole district consist of clay, sand and gravel, with a covering of rich vegetable mould. The surface of the country, whether woodland or prairie, is generally undulating or level, seldom broken into hills and ravines.

The water which is used for domestic purposes by the people living on the eastern and southern slope of this table land, is what is called *hard;* a few inhabitants only, of the vast population which occupy this territory, use *cistern water.*

There are many mineral springs and wells in this district, some containing valuable medicinal properties, others quite insalubrious. Those of most interest, in a sanitary point of view, may be found in Iroquois County. During the last ten years, about 200 artesian wells have been obtained by boring, at an average depth of about 75 feet. From these wells, good, salubrious, chalybeate water is obtained in great abundance, both for man and beast. From the use of this artesian water, the health of the people has been improved at least one hundred per cent.

Your reporter has given particular attention to the geographical, geological, and topographical delineations of that part of State for which he is to write, so that a more comprehensive view may be obtained of the etiology of the diseases which prevail, and to aid in getting a clearer understanding of its medical history. Impressed, as he is, with the fact that there are diseases which are a common scourge of the human race, which

seem independent of all known external influences, and present substantially the same symptoms, and are not materially influenced by *ease*, by *age*, or climate; there are others, influenced by known causes, such as inflammations from mechanical injuries, burns, fractures, etc.; and yet another class, resulting from a specific poison, such as *variola*, *rubeola*, etc. A knowledge of these diseases, their symptoms, lesions, and treatment, are, in a great measure, the common inheritance of the profession. On the other hand, there are diseases which seldom occur, except in climates or localities especially favorable for their production, or influenced by special states or conditions of society, among which may be mentioned bilious intermittent and remittent fever, typho-malarial fever, pneumonia, rheumatism, scurvy, etc. To the study of each class of these diseases the medical philosopher will give due consideration, as he must of necessity meet them in his professional career.

The diseases which are the common heritage of the race, prevail on the table land, and in the valleys of our State; besides these, we meet with those that are influenced by climate and locality. The more frequent in occurrence, are billious intermittent and remittent fevers. The milder forms prevail, mainly, on the table lands, and the more malignant are generally found in the low lands and in the bottoms.

In a practice of ten years, in my present locality, at an altitude of nearly 300 feet above Cairo, I do not remember to have seen a single case of *malignant* or *congestive chill*; and yet, during that time, I have treated many hundred cases of the milder forms of autumnal fever. But previous to 1856, while residing in the bottom lands of the Wabash and Ohio rivers, at an altitude of 300, and sometimes 400, feet lower than my present locality, I had frequent opportunities to study congestive chill by the bedside, in the fall and winter months; cases in which the system had received such a shock from the malarial poison that, at the very onset of the disease, all the vital forces seemed paralyzed, and the patient would die in a few hours, with or without treatment. As soon as the chill began, it would seem that the capillary system gave way, and the

watery portions of the blood were forced into the alimentary canal, with enough of the coloring matter of the blood mingled therewith, so that the matter ejected from the stomach and bowels gave to the friends of the patient the idea of a fatal hemorrhage, which was indeed true. The best efforts of the medical man to stay the ravages of the malady were of no avail. When such facts are presented to us, we are forced to the conviction that the poison, whatever it may be, exists in its most virulent forms in places of low altitude, in the bottom lands, beside the bayous, and the marshes near our larger streams. As we recede from the low lands and reach higher altitude, the milder and more manageable forms of bilious fever take the place of the more malignant type; and as we ascend the plane, typho-malarial or genuine typhoid fever takes the place of autumnal fever. I do not mean to say that typhoid fever does not exist on the low lands, but that it is more prevalent on the table lands.

To get a truthful exposition of the diseases which have prevailed in the district under consideration during the past year, I addressed letters of inquiry to more than one hundred medical men in my district; from a very few only have I been honored with a reply. From those who have kindly contributed to the material continued in this report, I have the united testimony that the year just closed has been the most healthy of any for many years preceding it; more free from epidemics and other diseases, incident to this country.

Bilious intermittents and remittents have prevailed throughout the district for which I report, only to a very limited extent. Dr. J. P. TAGGART, of Cairo, writes, that in the country forty and fifty miles above Cairo, the people suffered from intermittent fever; the people in and about Cairo suffered comparatively little. Dr. E. W. MILLS, of Moultrie Co., writes, that malarial type of fever is the prevailing disease in his locality. Dr. PAYNE, of Clark Co., writes, that bilious fevers are common in the low lands, but in the up lands, typhoid is more frequent in autumn. Dr. P. H. BARTON, of Vermillion Co., writes, that malarial fevers prevailed to a limited extent

in that locality. A fact, which the Dr. brought to my notice, worthy of consideration, is, that those who work in the coal-mines never have intermittent or remittent fever, proving, as Dr. B. suggested, that the real cause of bilious fever is of vegetable origin; but, as your reporter would say, proving that whatever the cause may be, the colliers may meet such gases or chemical agents in the mines as are capable of, and do completely neutralize the poison; for, I understand, the colliers are twelve hours of the twenty-four on land, and those, too, in which they would be most exposed to the disease—during the night and while they slept. While the miners were not at work, and above ground, they were subjected to the same influences as those were who constantly remained above ground, and were subject to autumnal fever. The gases of those mines will bear a more careful study in a sanitary point of view.

The treatment adopted for autumnal fevers, is pretty generally agreed upon and uniform:—Evacuants and antispasmodics, mild chloride of mercury, followed by cathartic, either oil or vegetable pills, and, during the intermission of fever, the free use of quinine and opium, as the patient will bear. My habit has been to give large doses of quinine and arrest the disease speedily, giving to an adult 4, 6, or 8 grains, repeated two, three, or four times if needed, in absence of fever. Thus, the disease is cut short, with less danger of a relapse.

In Iroquois County, there prevailed, during the month of August, a congestive form of remittent fever, which attacked both children and adults; with children, producing violent congestion of the brain; but with adults, congestion of liver, spleen, and stomach. The cases that were promptly cared for, recovered in six or eight days, under the following treatment: Emetics, antimony and ipecac.; evacuants, calomel, followed by castor-oil and turpentine; and when there was even partial remission in the fever, such doses of quinine as the age and condition of the patient would tolerate, with ice to the head, and frequent warm baths to the limbs and body. Those neglected, or poorly cared for, invariably died in from four to eight days from the onset of the attack.

A form of fever has existed in many parts of the district, somewhat resembling typhoid, but which lacks many of the characteristics of that disease, as described by those who see typhoid in hilly countries and high altitudes with a densely crowded population; but the disease resembles that called by Dr. G. B. WOOD, of Philadelphia, continued form of bilious fever; by Dr. A. CLARK, of New York, symptomatic fever; and, more recently, by the surgeons in the army, it has been well named typho-malarial. This disease has prevailed, alike, in the southern, middle, and northern parts of the State, particularly on the table lands. From August to January it is most prevalent, taxing the skill of the physician and strength of the patient in the most eminent degree.

Symptoms.—The patient complains for some days before being confined to bed, of loss of appetite, restlessness at night, pain in limbs and back, stiffness in the back of the neck, and general lassitude. After from two to four days, a chill comes on, of short duration, followed with fever and, not unfrequently, delirium, great heat and dryness of surface, dryness of tongue, and, generally, redness of the tongue, mouth and throat. The tongue becomes heavily coated after the first few days, first white, then yellow, and, as the disease advances, the coating is brown, and the tongue deeply fissured, so as sometimes to bleed. Sordes collect upon the gums and teeth. The same kind of coating which is seen upon the tongue, and in the mouth and throat, often extends to the larger air-passages in the lungs, and as the tongue and mouth are freed from this coating, it becomes loose in the lungs and is a source of much irritation in the air-passages. Resulting therefrom, we frequently have inflammation of the lungs, thus complicating the case and greatly compromising the patient's risk of recovery.

There are, usually, remissions in the fever, in about twelve, eighteen, twenty-four, or thirty-six hours, generally attended with some perspiration about the neck and shoulders, and at times all over the body; sometimes the whole surface will be moist or bathed with perspiration, even during the exacerbation of fever. Where perspiration is excessive, it is thought the patient is in more eminent danger.

The skin is hot (but not the burning heat of typhoid), moist, or dry, except when the patient has chill, which does not usually occur after the third day from the time the patient is confined to bed, but exacerbations and remissions of fever continue to a greater or less extent, throughout its entire course. If convalescence supervenes, the remissions are more distinct, until there is an entire intermission in the fever, the patient oscillating between fever and intermission, the fever period shortening daily, until it ceases altogether.

From the onset of the attack, the skin has a yellow or bronzed appearance; respiration hurried; the pulse increased in fulness and frequency, at first (with adults) during the fever not more than 90 beats in a minute, but as the disease advances, it reaches 100, 120, or even 140, sometimes open and full, and sometimes small, quick, and feeble; there is usually loss of appetite, at times amounting to loathing of food; sometimes nausea and vomiting, more frequently not—if there is vomiting, the ejections are sour or bitter, mostly yellow or green bile. There is usually great thirst, the patient calls for acidulated water or ice; the face is flushed; the eyes are dull and suffused; the patient, if not delirious, complains of headache, pain in the back and limbs, and is restless and wakeful. As the disease progresses, the pulse becomes more feeble and more frequent, seldom falling below 100, even during a remission; the tongue, dry, as before stated, generally cleans off after a week or ten days, the coating breaks up in large patches, and the tongue becomes smooth, red, and shines as if varnished, at times re-coated and deeply fissured, if the patient recover, to be again cleaned off and left red and appearing as if varnished, which condition often continues long after convalescence is established.

The bowels are usually constipated at first, but more easily acted upon by cathartics than with those who have autumnal fever. Sometimes there is diarrhœa from the onset, the alvine evacuations are commonly yellow, yellowish green, or black. In advanced stages of the disease, a troublesome diarrhœa is likely to set in, which exhausts the patient rapidly if not con-

trolled. The bowels, at first, are usually about in a normal condition, except it be in the region of the liver and spleen there be a sense of fulness experienced by the patient, and a manifest prominence or hardness, especially in the right side, by passing the hand over the surface. As the disease progresses, the bowels become tympanitic and often painful, which causes the patient to lie on the back with the limbs flexed.

The urine is scanty, high-colored, *reddish*, or yellowish-brown, in advanced stages of the disease, giving a lateritious, mingled with a white deposit, with more or less mucus, but no albumen, that your reporter has ever been able to detect.

A fact worthy of notice is, that the epistaxis, the sudamina, and the rose-colored spots so frequently met with and described as belonging to typhoid fever, together with a tendency to excessive diarrhœa, are not so frequently met with in this form of disease. That these symptoms are occasionally present, collectively or singly, is not questioned; but that they are pathognomonic of the disease, and always present, is denied, for it has been the province of your reporter to attend patients, sick with the disease in question, for four, six, and eight weeks, without either nosebleed, diarrhœa, or the rose-colored spots. All ages and conditions in society are subjects of the disease, but those most obnoxious to it are from 15 to 30 years.

I have had but very few opportunities to be present at autopsical examinations of such as have died of this disease, so that my knowledge of the anatomical lesions caused by it is limited. The cases I have seen, invariably presented mucous inflammation of the stomach, duodenum, and small intestines; the mucous follicles in the duodenum are usually enlarged and sometimes ulcerated; Peyer's glands were frequently inflamed, but I have never found them ulcerated, as a result of this disease. The most marked appearance of the liver, revealed by the knife, is a mottled or slate color; somewhat over normal size; and harder than in health. The spleen was of reddish or black color. Of lesions in other parts of the system, I am not able to speak with clearness.

The general appearance of this disease in our State, during

the fall and winter months, is my only apology for devoting so much of this report to its consideration, and the delineations above given are from my co-laborers, and from my own observations in the field where I reside.

Treatment.—There are few diseases flesh is heir to that demands the attention of the physician more than *typho-malarial fever.* It requires less medicine than other diseases, but unremitting vigilance on the part of the physician. Timely directed, gentle cathartics, diurectics, diaphoretics and tonics are the main agents employed. The poisoned condition of the blood, the result of a failure of one or more of the excretory organs to remove from the system the effete matter which is constantly accumulating from the changes in the living tissues. It may be the skin, the liver, or kidneys, or all of these combined, and thus retaining within the blood, excesses in carbonic acid, urea, coloring matter of the bile, and other poisoning material. Such a condition requires the use of those agents that will neutralize the poison, and eliminate it from the system. When the patient is first seen, if the bowels have not been moved for a day or two previous to the physician's visit, calomel, followed with castor oil and turpentine, are advised, so as to cause two or three evacuations, repeating the oil and turpentine, or tartrate of potash and soda, in drachm doses, until the bowels move, this only during the second or third day. The diurectic or diaphorectic with which I have been best pleased, is a solution of the citrate of potash made from formula found in U. S. D., given in tablespoonful doses, to an adult, every two or three hours, with warm bath during the continuance of the fever, with ice held in the mouth and swallowed, if the patient desire, and acidulated and mucilaginous drinks; if the patient's mind is clear, and yet restless, pulvis doveri, v. grs., at bedtime, repeated, if need be, to secure rest at night. During the remission of the fever, quinine is administered in two or three grain doses every two or three hours. While the fever lasts the alkali and warm bath are freely used. If, during the progress of the disease, the bowels become tympanitic, turpentine emulsion is freely used, one or two drachms during

twenty-four hours. Alcoholic stimulants are used in the latter part of the disease, if the patient seems feeble and little or no inclination to take food, and, if needful, the quinine and opiates increased. If the lungs become involved, as they frequently do, the best agents in my hands to meet this complication have been the protracted use of the turpentine emulsion and solution of the carbonate of ammonia, from five to eight grain doses, repeated every four hours. Such is an outline of the treatment adopted by my colleagues and myself, with such variations as individual cases have required, and with this course persistently followed we have had the satisfaction of knowing that a very large per cent. of our patients recovered.

Cerebro-Spinal Meningitis has prevailed in different parts of the State. Wherever it has prevailed its ravages have been fearful. Dr. PAYNE, of Clark County, stated to me that in an epidemic of this disease which prevailed last spring, within his field of labor, at least three-fourths of the cases proved fatal. It has also prevailed in the north part of Kankakee, and the southern part of Will Counties, with great severity. Many cases have been met with in Ford and Iroquois Counties during the months of February and March last. Most of the cases that occurred in Ford and Iroquois Counties were several miles in the country, and when medical aid was obtained, the patients were most of them in *articulo mortis*, beyond the reach of medicine. During the months of August and September of 1865, I had an opportunity of studying this disease at the bedside. My patients were all children, from two to ten years of age. About fifty per cent. of the cases died, and but one or two of the cases that I saw entirely recovered, free from complications. Some got up with partial loss of the use of one or more limbs; others with distorted features, or the loss of some of the senses, either of sight, hearing, or taste.

The causes, symptoms, pathology, and treatment of this formidable malady have been so fully discussed before this Society on former occasions in the invaluable monographs now on record, written by the Chairman of your present Committee on Practical Medicine, by our present permanent Secretary,

by Prof. JEWELL, of Chicago, and other gentlemen of eminent professional attainments in the State, that I feel relieved from this duty, except it may be competent to note a few points which will bear frequent repetition from their important relations to this subject. A noticable fact in all the cases that I have treated, when the patient was not in a perfectly comatose condition, was generally found on the back, resting most of the weight of the body on the occiput and lower extremities, the pupils of the eyes largely dilated, eyelids closed and limbs extended, and whenever approached with an attempt to move any part of the body, or even removing the bed clothes, the sufferer complained as if in great agony. There is always retention or suppression of urine, and a suspension of the normal function of the skin in the cases I have seen, and it has been my custom to resort at once to the hot bath, with mustard, if the surface is cool, and when the patient is removed from the bath, should be wrapped in flannel blankets, and the internal use of large doses of an approved preparation of tincture of cantharides, of from five to fifty drops, according to age, with chlorate of potash, in from two to ten grain doses, repeated every two hours, until a sensible impression is made on the kidneys. If strangury is produced, as cantharides may do, and it is hailed as a favorable rather than an unfavorable omen. In all the cases I have treated, if the skin and kidneys could be brought actively under the influence of remedial agents, the patient recovered. To get a more minute and complete history of this disease my hearers are referred to the papers before mentioned.

Dysentery, in an epidemic form, so far as I know, has not prevailed in the eastern and southern parts of the State, except in Edgar County, and perhaps some parts of Coles. I learn of the epidemic in that locality, from Drs. MASSIE and GEORGE RINGLAND. To the latter gentleman am I indebted for an extended report respecting the epidemic, whose language I feel at liberty to transcribe for the information of the Society.

Dr. RINGLAND reports that: "The first case came under treatment 28th June, and the last cases treated were in September. The principal part of them occurred during the

months of July and August. About 100 cases were under treatment in a town of 600 inhabitants. Of the whole number sick 13 died. The majority of the cases were children, and the mortality greatest among them. Of the deaths, three were adults and ten children. The disease was principally confined to town, but few cases in the country. The disease presented the symptoms usually met with in dysentery. There was fever, tormina-tenesmus; small mucus and bloody discharges. The cause of the disease was local. There were several hundred bushels of corn, unsound when first put in open pens, and by exposure to the hot weather and the rains in the months of May and June, it soon became putrid, and could be scented at great distance from the crib, and from the atmosphere thus poisoned the epidemic doubtless had its origin. The treatment was in no way unusual. The remedial agents used were opium, ipecac, calomel, castor oil, turpentine, tonics, etc."

Cholera has prevailed more or less in many parts of the State, and in some portions extensively. Dr. TAGGART, of Cairo, has kindly furnished me the following history of the epidemic, as it prevailed in that city last summer. He reported "between 350 and 400 cases of pure Asiatic cholera as having occurred in Cairo, and out of that number not over ten per cent. of the cases proved fatal. It was surprising to find with what rapidity the disease appeared to leave, for its course was only about four or five weeks duration. The first symptoms were usually slight nausia, followed with transient pains or rumbling in the bowels, diarrhœa, slight and painless at first. Such I have invariably found to be but the skirmishing part of an advancing column, and if I would stay its ravages must not hesitate to commence at once with the following

"℞.—Tinct. opii, spirits camphor,----------āā ℥j.
Tinct. rhei,----------℥ij.
Chloroform,----------℥ss.
Mix.

"Give teaspoonful every one-half hour until the diarrhœa is arrested, which will be on taking the third or fourth dose, when the case is taken in season. In more advanced cases, where

the diarrhœa was more troublesome, injections of starch and laudanum were used. With cases of greater violence, to the foregoing mixtures there is added, in small doses, calomel, opium, and plumbi acetas, with free use of mustard cataplasms to the stomach, friction to the parts affected with cramps, requiring the patient at all times to lie still, on the back. Chloroform, in any stage of the disease, when freely used, by inhalation, will do much to relieve the suffering caused by cramping in the extremities."

The disease also prevailed in Edgar, Coles, Champaign, Iroquois, Cook, and probably other counties in the State. The causes, symptoms, pathology, and treatment of which will be abundantly and ably discussed by my colleague, the Chairman of your Committee, whose residence in the city of Chicago brought him in immediate relation with the disease, and afforded him an abundant opportunity for such investigation, to whose paper I feel at liberty to refer for extended views on this subject.

Variola has been much less prevalent the past than a few years just preceding, as the more fruitful sources for its spread have been sensibly diminished since the close of the war, and as there has doubtless been greater vigilance exercised to control it by vaccination and revacination, thus stopping, abruptly, its progross wherever it has appeared. The few cases I have seen were not permitted to spread, for all persons were at once vaccinated who were likely to be exposed in any way, confining the disease to its first subjects.

Diptheria has prevailed in some parts of the State in a troublesome form, but I think not as a serious epidemic. Many cases have occurred in the middle portion of the State, which, as I learn, have been successfully treated with chlorate of potash, tonics, and stimulants, internally; salt bath, externally, and the permanganate of potassa, used as a gargle. I think too much importance cannot be attached to the free use of the chlorates in the treatment of this formidable disease, as well as in the treatment of scarlet fever. During an epidemic of these diseases, which prevailed together in the years 1864

and 1865, in Iroquois County, about two hundred and fifty cases of both diseases came under my care, at which time I had repeated opportunities to test the virtues of the chlorates, and equally frequent opportunities to witness their good effects upon my patients.

Rubeola has not, to my knowledge, prevailed in the State as an epidemic, except in Champaign Connty, where, I learn from good authority, it prevailed during the three winter months, with great severity. It is reported that about one thousand persons fell victims to this malady. Many of the cases were of a malignant type; only about one-twentieth were adults. In a number of cases persons had the disease who had been its subjects before. Most of the fatal cases were the result of the complications. As there is always, with measles, inflammation of the skin and the mucous surfaces, so when it prevails in cold or damp weather, we are very likely to have complications. The most frequent are inflammation of the throat and lungs. Thus has it been with the epidemic in question. The fatality was the result of bronchitis or pneumonia. There seemed to be a special tendency to pneumonia, which was attributed to the extreme cold weather that we had during the prevalence of the disease; for when we had warm weather in the month of February there was a marked diminution in the pulmonic complications, and the disease assumed a much milder and more manageable form. The causes, symptoms, pathology, and treatment of this disease have been so thoroughly discussed in our textbooks, and are generally so well understood by the medical men that it seems useless to consume time in discussing these points here. Permit me to say, however, that in addition to the ordinary treatment adopted for measles, in *this epidemic* the sulphites (especially soda) were used freely and with marked success. Such is the condition of the skin and mucous membrane in this form of disease, that these surfaces fail to perform their natural functions, and, consequently, a large amount of effete matter, which in health is eliminated through the pores of the skin, from the lungs and kidneys; is retained in the blood at great risk to the patient; and, from the short experience had

from the use of the sulphites, there are in use no agents so neutralizing to the accumulating poisons, and in preventing their destructive influences on the normal constituents of the blood. Their use, therefore, in the treatment of rubeola and other exanthematous diseases, is worthy of the careful consideration of the profession.

The sulphites of soda and lime, the permanganate of potash, the bromides of potash and ammonium, have all been recently brought into use as medical agents. Bromine and its compounds have been especially urged upon the notice of the profession as valuable disinfectants, antiseptics, and possessing in a wonderful degree a controlling influence over nervous affections.

Two *very valuable papers*, bearing upon the efficiency of the bromides in treating nervous affections, were read to the Society at our last Annual Meeting, both from distinguished members of our Society, each of which are worthy of careful study. During the last two years I have used bromide of ammonium with good results, in treating whooping cough, hysteria, epilepsy, and in protracted cases of pneumonia, where the lungs are left in an irritable condition. I have also found it serviceable in controlling nervous restlessness at night. Taking due care that *too much* is not expected from these agents, we may, I think, hope to use them with decided benefit, especially in treating nervous affections.

ARTICLE XXXII.

DEFORMITIES OF THE FEET.

BY JULIEN S. SHERMAN, M.D., Chicago.

The feet are more frequently the seat of deformity, either congenital or acquired, than any other members of the body, and the important part they perform in the act of walking, renders all the forms of talipes a serious impediment to locomotion. With the exception of spinal curvatures, they require more perseverance and continued effort for their correction than deformities of other localities. Improvements in the principles of treatment and manner of dressing have added greatly to the success in relieving them, so that at present there are but very few cases, even where the distortion is great, that will not yield to persistent and well-directed efforts, so that at least a useful if not a perfect member may be obtained.

These deformities are not generally rapidly produced, neither are they quickly cured; but their removal requires a period reaching through weeks and, often, months.

The causes which produce them are as numerous as the various forms under which they are seen. One, almost constant, factor in their pathology is *unequal muscular action.* Paralysis frequently results in these deformities. Inflammation of the ankle, by causing reflex contraction of the muscles in its vicinity, often produces talipes equinus, as the muscles of the calf are stronger than the extensors, they draw the heel up and produce the deformity. These, or other causes, which produce unequal shortening or contraction of muscles and ligaments, terminate in malposition of the foot.

Restoration is prevented by the resistance of these shortened tissues, and may be overcome in two ways:—by extension long continued, and by tenotomy. Some orthopædists have discarded operative measures entirely, claiming that the contracted tissues may all be lengthened by sufficient extension. This is true in many cases; but there are others, where the deformity is so great and of so long-standing that tenotomy offers the only hope of restoring the parts. A careful selection

of cases should be made for the two methods of treatment, in order that the division of tendons may be as limited as possible. Properly adapted apparatus is necessary after the operation to complete the cure.

DIVISION OF THE FLEXOR BREVIS DIGITORUM MUSCLE, AND PLANTAR FASCIA.

There is a rare deformity of the foot, in which the tarso-metatarsal articulation and the phalanges are the parts principally involved, the bones being so far drawn from their proper position that they point backward, and the patient walks upon the heads and dorsal aspect of the phalanges. If the limb is much used, the deformity increases to partial displacement of the astragalus, and becomes complicated with talipes varus, so distorting the foot that it *scarcely resembles the human in form.* In these cases, the plantar fascia, flexor brevis digitorum muscle, and the plantar ligaments are most firmly contracted, and offer the principal obstacles to extension. These tissues must be divided before the *bones can be extended.* The most effective position for division, and one that is approached with perfect safety to the plantar artery and nerve, is reached by introducing the tenotome on the outer side of the os calcis, just in front of the outer tuberosity, and carrying it directly across the sole to the inner border, and then cutting to the bone, thus severing the tissues at their origin and separating them entirely from their attachments. The long plantar ligament may be divided by keeping the knife still in contact, and carrying it forward until the ligament is separated.

This division is *behind the line of crossing of the artery and nerve*, hence they escape injury, and by it the phalanges are liberated and can be brought forward sufficiently to admit of suitable dressings for extension. An effective and simple apparatus for this purpose is represented by Fig. 1. It consists of a piece of sole leather, soaked until soft and pliable, and then moulded to the foot and laced at the side. A band of sheet steel is attached to the bottom and extends as a rod beyond the toes, at the end of which buckles are fastened. Adhesive

straps are applied to the front and side of the leg, the lower ends of which terminate in elastic webbing, which is carried forward and secured in the buckles at the end of the steel rod. By these means the points of purchase on the leg and foot are obtained and the latter may then be drawn strongly in any desired direction, and the stretch continued until the contracted tissues have yielded, and the foot assumed the normal position.

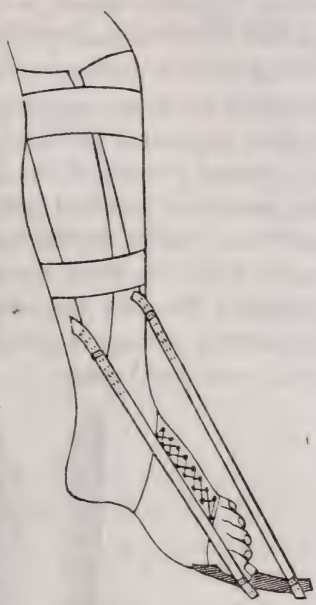

Fig. 1. Dressing for Club-foot.

Fig. 2, is a sketch of a case of the previous description, treated last spring. It is taken from a cast, and is very accurate in its representation.

This case was of the most aggravated kind, and had existed for 22 years. The patient applied for an amputation, in order that he might wear an artificial foot and be relieved of so great a deformity.

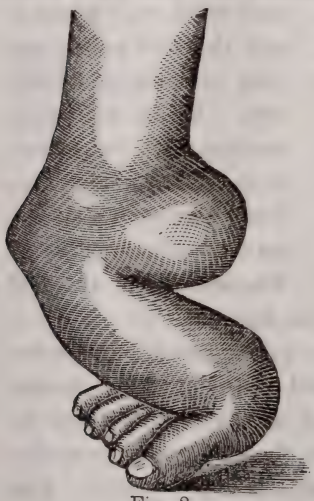

Fig. 2.

The heel was raised three and three-quarter inches from the ground, the metatarsal bones twisted inwards upon the tarsus, and the astragalus luxated forward. The toes strongly extended, so that the dorsal surface of the fourth and fifth were in contact with the corresponding surfaces of the metatarsal bones. In standing, the point of contact with the ground was thrown back of the ankle-joint. The deformity was complicated with talipes varus.

It was necessary to make a complete division of the flexor brevis digitorum muscle, and plantar fascia, which was accomplished in the manner previously described. The tendo Achillis and tibialis posticus were also divided. The foot was then placed in the dressing represented by Fig. 1, and, subsequently, another apparatus provided, which, by means of a ratchet and cog, turned the sole of the foot outward, at the same time that the toes were elevated and the heel depressed. During the treatment, union of the tendo Achillis was so rapid that it required division three times, before the heel was brought into position. The case was under treatment three months, which, considering the age of the deformity and resistance of the tissues, was a rapid result.

Fig. 3. Present Condition.

Fig. 3, is taken from a photograph, and represents the present condition. The result is much better than was expected. The whole sole is in perfect contact with the ground, and the foot points out fully as much as its fellow. It is somewhat smaller than the other, from non-development, but otherwise is a strong and useful member. The muscles of the calf will increase in size and strength as the foot is used.

Deformities of the feet should never be neglected, but receive prompt attention at the earliest period possible, as the tissues become stronger and more contracted as the case advances in age. In very young children, caution should be used in applying apparatus, that ulceration of the skin is not produced. For such cases, the adhesive strap and elastic webbing form the best dressing. By these means, most cases in children, if taken early, can be cured without any operative measures.

ARTICLE XXXIII.

OLIVE OIL IN LARGE DOSES IN GALL-STONE DISEASE.

By IRA HATCH, M.D., Chicago, Ill.

Read to the Chicago Medical Society.

On the 18th of last May, I was called to see Mrs. K., of Evanston, whose health had been failing for a long time. She was then under the treatment of Dr. SMALL, of Chicago, who had treated her for scirrhus of the liver. She had suffered paroxysms of the most excruciating pain, with nausea, vomiting, and sometimes hiccough. These paroxysms increased in severity and frequency. The treatment failed to relieve even the pain, much less remove the cause, and she was forced, ultimately, to resort to anodynes. She took 60 drops of McMunn's elixir at a dose, which relieved the pain while the patient was under its influence. In the meantime, she was growing weaker, and the case was becoming desperate.

The following were the most prominent symptoms when I first saw her:—Skin as yellow as an orange; bowels obstinately constipated; countenance sunken and haggard; violent pain in the epigastric region, running around the right side nearly to the spine; nausea and vomiting; extreme thirst, and distress for breath, apparently from defective innervation. It was evident that the jaundice, pain, constipation, and vomiting were owing to the presence of gall-stones.

She was advised to take large doses of olive oil, to soften and expel the gall-stones. She resolutely determined to make the effort, though it seemed extremely doubtful about keeping the oil on the stomach; but she succeeded, by the help of a little cider taken after the oil. The first night she took a half bottle, and the two following nights the remainder of the bottle of oil. It operated freely and brought off a great number of gall-stones, resembling full-grown gooseberries, in size and color. As they floated upon the top of the water, they were mistaken and thrown out; but enough were saved to prove their charac-

ter. They were soft and completely saturated with the oil. she was greatly relieved by the operation. But, three or four days afterwards, fancying that the old pain was about to return, she repeated the oil, and came near sinking under the operation. It increased the exhaustion and irritability of the mucous membranes of the stomach and duodenum. Appearances were decidedly against her. Although the cause of the disease was removed, certain consequences which might prove fatal. The most prominent of these were, irritation, if not inflammation of the mucous membranes of the stomach and duodenum

To remove this irritation, or sub-acute inflammation of the mucous surface, seemed to be the principal indication for treatment. All solid food was forbidden. She had craved and had taken some solid food, which had probably kept up the pain after the gall-stones were evacuated. To allay the thirst, which was intense, she took small quantities of Vichy water, ice-cold, every few minutes. This was grateful to the stomach, it relieved the nausea and sicknese. She also took the white silver mixture, prepared as follows:—

℞. Argent. Nitratis,---------- grs. xvi.
Potassii Iodidi,---------- grs. xxiv.
Aqua Distil.,---------- ℥iv.

Dissolve the nitrate of silver in the water, add of the iodide sufficient to form a pale yellow precipitate; let it settle, pour off the water and supply its place with pure water, then add the remainder of the iodide of potassa. Shake well, and take a teaspoonful every four hours.

After two days she could bear a weak, cold infusion of the hydrastis Canadensis, which acts well in certain forms of sub-acute inflammation of the mucous membrane.* The infusion of the root should be weak, or it will offend; especially where there is excessive irritation.

Mrs. W., a sister and neighbor of Mrs. K., was laboring under the same disease, but in a less aggravated form. Her skin was very yellow, bowels constipated, and appetite poor;

* I have never seen any preparation of the hydrastis that has satisfied me as well as the infusion of the root in cold water.

she had every appearance of gall-stones. What heightened the probability was, that her mother and oldest sister died, a few years since, of the same diaease. Encouraged by the success in Mrs. K.'s case, she took the oil; one bottle in four days. It did not operate till the whole was taken, and then the operation was mild, and the gall-stones, in large quantities, passed without pain. She is now recovering her health surely and rapidly.

I saved a few of the calculi to exhibit to the Society; they were then in good shape, but soft, and perfectly saturated with the oil. I placed two of them upon a paper and exposed them to the heat of the sun, to harden, but they melted down, completely dissolved in the oil; thus demonstrating the fact that biliary calculi are completely soluble in olive oil.

I do not ktow of any author who has ever hinted at the possibility of dissolving these calculi in the living body. DUNGLISON says, "solvents are not to be depended upon. They cannot reach the calculi." Dr. KIDD, of London, praises chloroform highly, in gall-stone colic. He argues that it lets through the calculi, by relaxing the ducts; but he seems to have no notion of a solvent. Dr. THUDICUM believes that their solution in the living body is impossible. But the history of the two cases above related, shows conclusively that biliary calculi are soluble in olive oil, while in the gall-bladder of the living subject.

These concretions seem to be composed mostly of inspissated bile, hardened around a small deposit of cholesterine, which seemed to serve as a nucleus. In the centre of each calculus that I examined, there was a whitish substance, resembling tallow softened by oil. The oil had completely permeated every particle of the concretions.

ARTICLE XXXIV.

A FEW OBSERVATIONS UPON THE SUBJECT OF DIGESTION.

By R. DEXTER, M.D., Chicago, Ill.

Food—Classifications of.

Nitrogenous	Albumen, Caseine & Fibrine.	Non-Nitrogenous.	Hydro Carbons and Fats. CARBO HYDRATES. Sugar, Starch, and Gums.

Food—Physiological Classification of.

Tissue-making Food.	Albumen, Fibrine, and Caseine.
Sugar-making Food.	Gluten, and Chondrine.
Fat-making Food.	Sugar, Starch, and Fats.

Processes Wrought in Different Organs.

Mouth—Changes in.	Mastication, and Insalivation. We have partial conversion of Starch into Glucose.
Stomach — Changes in.	Albumen, Fibrine, Caseine, and Animal Jelly.
Duodenum—Changes in.	Sugar, Starch, and Fats.

As the result of the digestive processes, we have the following:
Albuminose, consisting of Albumen, Fibrine, and Caseine.
Gelatinose, consisting of Gluten, and Chondrine.
Glucose, consisting of Sugar, and Starch.

Adipose, consisting of Fats.

The whole digestive mass gains entrance into the blood by two separate routes, viz.: lymphatics and veins.

1. Lymphatics of the small intestines absorb the adipose emulsion with an albuminous coating of each globule.

2. The balance of the albuminose, with the whole of the gelatinose, and gleucose are absorbed by the veins of the small intestines, and pass to the liver through the portal vein.

3. In the liver the albuminose becomes albumen, the gelatinose becomes sugar, and the glucose becomes fat.

4. Liver sugar is carried to the lungs, where it is converted into lactic acid.

5. In the transit of the emulsion through the intestinal lymphatics fibrine and the white corpuscles of the blood are organized and elaborated.

6. In the spleen a portion of fibrine white corpuscles and nurine of the blood are organized and elaborated.

7. (Conjectural.) Old red corpuscles disorganize in the spleen, and from the debris fibrine is the only constituent that serves any useful purpose; the residue is excreted.

8. The white corpuscles, in their passage through the spleen, elongate and burst, setting their nuclei free. These nuclei absorb hæmatin, and become red corpuscles, while the wall of the bursted corpuscles fibrius.

9. But the liver is the grand laboratory of red corpuscles. The hepatic vein is richer in both red and white corpuscles than any other vessel of the body. The splenic vein is next in richness of red and white corpuscles to the hepatic.

10. Assimilation takes place outside of the blood vessels. The exuded plasma saturates every structure of which we are composed, and decayed portion of the tissues are replaced by the appropriation of a sufficient amount of the nutritive pabulum.

11. The bile is not a digestive fluid; it is both secretory and excretory. A secretion always serves some further useful purpose in the system, and is never found in the blood.

12. There are no essential changes wrought upon animal fats either by digestion or assimilation.

ARTICLE XXXV.

TAPE-WORM. (TÆNIA SOLIUM.)

By S. A. McWILLIAMS, A.M., M.D., Chicago, Ill.

The following case of tape-worm is reported, merely to strengthen the reputed efficacy of pumpkin seeds as an anthelmintic:

Thomas V., a lad of six years, had been troubled for about a year with a tape-worm, segments of which had been frequently seen in his fæces. The parents said that his sleep was often disturbed, as if frightened; that he had occasional pain of a spasmodic character; often picked his nose, and scratched his fundament, and was rapidly wasting away. His appetite was exceedingly variable, sometimes voracious; at others, entirely deficient. Others had subjected the boy to the usual amount of pink root, calomel, castor oil, and turpentine, etc., but the worm safely retained his moorings.

I directed him fifteen drops of turpentine, in the form of an emulsion, three times daily for a week, and afterwards that two ounces of the kernels of pumpkin seeds be thoroughly ground up with sugar, to a very fine pulp, and sufficient mint water added to make an emulsion of twelve fluid ounces.

The above was taken in the morning, between six and seven, in divided doses, upon an empty stomach. At 9 A.M., two tablespoonfuls of castor oil was given, and at 11 A.M., the usurper rapidly beat a retreat before the advancing foe, and twenty-one feet, head and shoulders, were carefully bottled up. Since which time the boy has rapidly gained in strength and spirits to the joy of his doting parents.

ARTICLE XXXVI.

REPORT ON THE PREVALENCE OF DISEASE IN CHICAGO, FOR THE MONTHS OF APRIL, MAY, AND JUNE, 1867.

By N. S. DAVIS, M.D., Prof. Practical and Clinical Medicine, Chicago Medical College.

Read to the Chicago Medical Society.

Since my previous sanitary report, ending March 31st, 1867, nothing of special interest has occurred in relation to the prevalence of diseases in this city. The predominant meteorological characteristics of April were cold and dry, and those of May, cold and wet. During the latter month, the rains were so frequent and copious that the surface of our city plot was constantly saturated and sometimes covered with fresh water. During both of the months named, the prevailing temperature was so much below the average for a series of years that the progress of vegetation was two weeks later than usual. With the exception of some severe cases of typhoid pneumonia, the diseases prevalent during these two months were chiefly catarrhal and rheumatic, giving rise to a low ratio of mortality.

The first seven days of June were warm, sultry, with wind constantly from the south and south-west, and frequent showers of rain. On the 8th, the wind suddenly changed to the north, bringing a cold atmosphere filled with mist or fog. The 9th and 10th were clear, dry, and warm, with very light wind from the south. The 11th was warm, sultry, with copious showers from the south-west. The 12th, 13th, and 14th were clear, very warm, with light wind from the south and south-west. On the night of the 14th, the wind changed to the north-east, and remained there during the 15th and 16th, bringing a cool atmosphere, with mist and fog. From the 17th to the 22d, the mornings were almost uniformly warm and clear, with south or south-west wind, and the evenings and nights cool, bracing, with wind from the north-west and north. The 22d was ushered in with a hot, sultry atmosphere and south-west wind.

Thunder showers followed in the afternoon, with a change of the wind to the north-west, and much cooler. The evening was cool, with a brilliant display of atmospheric electricity. From the 23d to the 28th, the mornings were clear, hot, and dry, with only slight rain on the 27th. The wind was in the south or south-west every morning, and in the north-west or north, with a cool atmosphere, in the evening. The 29th and 30th were clear, dry, and very warm, with south winds.

In regard to local sanitary conditions, it may be said that abundant materials, in the form of stable manure, contents of outside privies, and refuse matters, existed throughout the city for engendering the products of animal and vegetable decomposition. But the low temperature and abundance of fresh-fallen water during the months of April and May prevented any deleterious action on such materials. Although the temperature of June was much higher, with less rain, yet, with not more than three exceptions, the nights were cool and bracing; and the dry days were no more than sufficient to expel the excess of water that had accumulated upon the surface the previous month. Hence, it may be said that both atmospheric and local causes were favorable to the preservation of health during the three months under consideration. And this is in consonance with the actual mortality, as shown by the Health-Officer's reports.

The gross mortality in the city was, for April, 278; May, 241; June, 283. In 1866, it was, for April, 278; May, 275; June, 319; showing a decrease of 71 during the three months of 1867, as compared with the corresponding months of 1866. This decrease consists almost exclusively in the smaller number of deaths from bowel-affections in the months of May and June.

Although the month of June, 1867, gave a low ratio of mortality in the aggregate, and a smaller number of deaths from bowel-affections than the same month in 1866, yet the relations between certain atmospheric conditions and attacks of the latter class of diseases was clearly traceable. As already stated, the first seven days of the month were warm, *showery*, and damp, with prevalence of south winds; conditions which are

generally accompanied by deficiency of both ozone and free electricity. It was during the last two of the seven days, that I saw the first cases of cholera-infantum and the two first cases of cholera-morbus in adults the present season. I saw no new cases until the 12th, which was very warm with south wind, and the preceding day had been equally hot, with showers of rain. On the morning of the 16th, I was called to a woman, aged about 55 years, at 448 State Street, presenting all the symptoms of severe spasmodic cholera. She had been taken suddenly, between 1 and 2 o'clock A.M. The vomiting and purging had been frequent, copious, and rice-water in appearance; skin corrugated, cool; eyes sunken; voice very husky; pulse small and feeble; cramps in the muscles of the extremities severe and frequent; and at the time of my visit (7 o'clock A.M.) the discharges from the bowels were involuntary. The patient, however, recovered under diligent treatment. This patient slept in a small room adjoining the kitchen, without any window, and exceedingly deficient in ventilation. No other well-marked cases either of cholera-morbus or of serous diarrhœa came under my observation until the 22d.

From that time, cases of ordinary diarrhœa and cholera-morbus in infants were observed almost every day until the end of the month. But the mortality in this class of cases was small.

While the Board of Health has been acting diligently since its appointment, there remain many streets, alleys, and lots, from which the surface water has found no exit except by evaporation; and hundreds of full out-door privies and manure-heaps exist, more especially in Wards 6, 7, 11, 12, 14, and 16. Up to the end of June, enough dry weather had occurred simply to dissipate the excess of fresh water that had accumulated during the month of May; and, hence, but little influence has been exerted thus far by emanations from the soil proper.

If the month of July should be hot and dry, it will develop the full influence of those miasms resulting from the action of high temperature on the local accumulations in our surface soil in the process of dessication; and will, consequently, determine the character of diseases for the present summer.

Proceedings of Societies.

PROCEEDINGS OF MORGAN COUNTY MEDICAL SOCIETY.

The regular meeting of the Morgan County Medical Society was held in Firemen's Hall, on Thursday, June 13th, and was called to order by the President, Dr. Henry Jones, at 2 o'clock P.M.

In the absence of the Secretary, Dr. LUCAS was elected Secretary, *pro tem.*

The minutes of the last meeting, as printed in the Weekly Jacksonville *Journal*, were approved.

The Committee on Examinations reported in favor of Dr. J. G. Cox, of Jacksonville, and Dr. T. N. Stewart, of Exeter, who were at once elected, by the unanimous vote of all the members present.

Dr. Askew, in place of an Essay expected of him, related the history of two cases of phthisis, and their successful treatment with cod liver oil. The patients are both living, and are in apparent good health.

Dr. Prince confirmed the opinion of the beneficial results of cod liver oil in phthisis, considering it a curative as well as a preventive agent, and gave it the preference over the alcoholic treatment.

Dr. Prince had been called in consultation in one of the cases mentioned, and was requested by the Presideut to state some of the signs and symptoms which had resulted in the diagnosis,

Quite a discussion arose as to whether there was pain during the early stages of tuberculosis in the parenchyma of the lungs, and whether pain could arise from inflammation of that tissue.

The President stated that he never had found pain in this disease in his practice, and that the lungs were too insensible an organ to produce it.

Dr. Edgar considered the diagnosis of phthisis in the earlier stage very uncertain, and mentioned as a valuable means of diagnosis the comparative elevation of the scapula on a deep in-

halation by the patient; that in the first stages of phthisis, the deposit of tubercular matter at the apex of the lungs, produced similar physical signs, as chronic bronchitis, extending by continuity to the adjoining parenchyma, rendering the lung imperveous and flat, or dull on percussion; that the principle diagnostic symptom was the existence or absence of pain attending the primary deposit of tubercles, whereas pain did accompany the other condition to a greater extent.

Dr. Buckner next read an essay on the Practice of Medicine, reviewing the comparative progress of this with other sciences.

On motion, the thanks of the Society were tendered Dr. Buckner for this interesting paper.

Dr. Edgar then read an Essay on "Veratrum Viride," giving some valuable accounts of its history, and therapeutic properties as an arterial sedative, the doses, its different action, when used in the mouth, and as a subcutaneous injection. The reason that it is not much more used, is, that Dr. Norwood, of South Carolina, who brought it in general use, recommended it unwisely as an emetic, and in some diseases in which it is not applicable. The U. S. Dispensatory, the most popular standard work, recommends its use in over-doses, which often produces harm and anxiety both to patient and physician.

Dr. Edgar was requested by the Society to furnish his interesting paper to some medical journal for publication.

The therapeutic properties of veratrum viride gave rise to the description of a new instrument, the sphygmograph, or pulse-writer, and its value as a diagnostic agent in the action of medicine on the pulse; for instance, the effect of the administration of alcohol as an antidote to veratrum viride. According to Dr. Edgar, the tincture of cantharides, in connection with alcoholic stimulants, is the best restorative in case of an over-dose. The peculiarities of the action of alcohol are, that small doses increase the pulse in frequency, and large doses increase it in volume, force, and fullness, and not in frequency; also, that it reduces the temperature of the body, as shown by numerous experiments under the use of the thermometer, applied in the axilla or under the tongue.

Dr. Craig asked a question in regard to the antagonistic effect of belladonna in opium poisoning, and *vice versa.* He and Dr. Edgar gave cases, in which they derived apparent good results, yet the treatment was combined with other remedies.

Dr. Craig reported, also, a case of dysentery treated successfully by veratrum viride. The administration of the agent was accidental.

Dr. Reed spoke of the therapeutic effects of several drugs similar in action to veratrum viride as arterial sedatives.

On motion to appoint a committee to revise the Constitution of the Society, the President appointed Drs. Wilbur, Craig, Prince, Bibb, and Askew.

The President appointed Drs. Bibb and Craig to read Essays at the next meeting.

On motion, the Society adjourned to meet on the second Thursday in July, at two o'clock precisely, at Firemen's Hall, in Jacksonville. C. J. Lucas, M.D., Secretary, *pro tem.*

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The Society met in Firemen's Hall, in Jacksonville, on Thursday, the 11th of July, at 2 P.M.

Dr. Henry Jones, the President, called the meeting to order, when the minutes of the June meeting, as printed in the Weekly Jacksonville *Journal*, were read and accepted.

Dr. William S. Edgar, one of the committee of five on legislation, appointed by the State Medical Society, suggested the consideration, by the Society, of a proposed law to regulate, in the State of Illinois, the practice of medicine, to protect the people of the State more effectually from the ignorance of the many illiterate and uneducated self-styled doctors who are found throughout the country.

On motion, it was made the subject for discussion at the next regular meeting.

Dr. Bibb reported a case of gonorrhœal orchitis, treated by a deep incision, followed by immediate relief to the patient, and a more speedy convalescene than by any other method of treatment that he had ever adopted. The Doctor had been prompted to try this method from the successful results of simi-

lar operations by eminent men in Europe and in this country, who had published their plan of treatment in late medical journals, and was much pleased with the result of the practice in the case referred to.

Dr. Prince remarked, though he had never tried the plan, yet it was recommended by many surgeons, and was uniformly well spoken of. He supposed the practice was based upon the hypothesis that the fluids discharged by the puncture had given rise to the pain by pressure, and the removal of the pressure gave immediate relief.

Dr. Kimber, of Waverly, mentioned a case where he had accidentally punctured this organ, but that immediate relief to the patient was the result, and a speedy convalescence. The patient had been troubled with orchitis and chronic hydrocele for several years, but after the accidental operation recovered completely, and had never been troubled since.

Dr. Edgar had found but little difficulty in treating this disease by the ordinary method.

Dr. Wilbur had been successful in several cases by using tartar emetic in nauseating doses, producing speedy convalescence.

Dr. Craig, of Arcadia, then read a paper on scarlet fever, giving the history of a recent epidemic of this disease in his sphere of practice.

The Doctor was requested by the Society to publish his Essay in some medical journal.

Dr. Craig had found that nitrate of silver in solution, applied by spray through the atomizing tube; also, a strong infusion of capsicum, applied in the same way, very beneficial local applications to the tonsils and pharynx. Used, also, tincture of muriate of iron with glycerine, as a local application to the throat.

Dr. Prince suggested that the way in which this epidemic had originated was additional evidence of the contagiousness of the disease, and should be remembered.

Dr. Henry Jones, in relation to the imaginary prophylactic power of belladonna in this disease, remarked that in one fami-

ly where he had faithfully tested its use, one little unruly boy had resisted every effort of his parents to make him take the belladonna, and he alone escaped the disease. He had found dilute muriatic acid locally applied the best remedy, and considered chloroform and chlorate of potash valuable remedies in connection with other means of treatment. He had observed that there was greater acceleration of the pulse in scarlet fever than in any other of the acute febrile diseases.

The Examining Committee reported favorably in the case of Dr. Skinner, of Bethel, when he was unanimously elected a member of the Society.

Dr. Brown, of Waverly, Dr. Dutton, of Jacksonville, Dr. DeLeuw, of Jacksonville, and Dr. C. A. Edgar, of Arcadia, were appointed to prepare Essays for the next meeting.

After the usual remarks of mutual admiration and congratulation, the Society, at five o'clock P.M., adjourned to meet at two o'clock P.M., on Thursday, the 8th of August.

C. T. Wilbur, M.D., Secretary.

CLARK COUNTY MEDICAL SOCIETY.

This Society met at Marshall, July 1, 1867, eighteen members being present.

Good feeling prevailed throughout the meeting, and all seemed to be fully imbued with a spirit of inquiry and medical research.

After the business of the Society was transacted, Dr. J. C. Price read an article on the preparation and use of styptic colloid. It forms an excellent application in all abraded surfaces. He spoke of its good effects in Whitlow, after the use of the knife. He also read a paper on the "True Physician," in which he urged, with great force, the necessity of united action on the part of medical men against the inroads of impostors and quack nostrums. He spoke against the recent efforts on the part of speculators in human life to revive the old follies of

magic incantation and *hocus pocus* in the form of "Snap Doctors," and other impositions.

Dr. Daniel Gard read a lengthy article on "Chronic Conjunctivitis," which was listened to with much interest. The Doctor has had a great deal of experience in the management of this disease, and his chief remedy is nitrate of silver, as a local application, aided by proper constitutional remedies. He uses the nitrate in the strength of from one to fifteen grains per ounce of Rose water.

On motion of Dr. Payne, Dr. Gard was requested to furnish a copy of his paper for publication in the CHICAGO MEDICAL EXAMINER.

Dr. Spencer remarked, that at our next meeting he would read a paper on the Nature and Treatment of Carcinomatous Tumors, and cancer in general.

Dr. Jennings offered the following resolution, which was unanimously adopted:

Resolved, That every member of this Society, at each regular meeting, be absolutely required to read an Essay on some medical subject, or report a case and treatment.

Dr. A. A. Lodge was unanimously elected a member of this Society.

Dr. Payne read a paper on the "Vis Conservatrix Nature." He impersonated this restorative power of nature, and contended that the difference between a good physician and no physician at all was not half so great as the difference between a good and a bad physician. At an early day this power was the *archeus* of Van Helmont, and the *animi* of Stahl. The Doctor remarked that this curative power of nature was strictly scientific, yet it was unfortunately and necessarily the main prop and back bone of all false theories and medical impostors. Were it not for this power the infinitesimal doses of the homœopath would no longer delude and swindle mankind. This paper was received, and ordered published.

Dr. Jennings gave the *post mortem* appearance of Mr. J. Stover, nineteen years old. This young man was examined by the members of this Society last March, and his disease was

pronounced hyperthropy of the heart and hydrothorax. After death his heart was found greatly enlarged, walls thin, and about one gallon of water in the thorax. The treatment recommended last March did not seem to produce the least benefit. The disease had advanced beyond the reach of remedial agents. This case was fully discussed by Drs. Jennings, Lodge, Mitchell, Gard, and Goodell.

Dr. F. R. Payne presented an Essay on Cerebro-Spinal Meningitis, in which he reported two recent malignant cases, and gave the *post mortem* appearanca of one. This paper was ordered to be sent to the CHICAGO MEDICAL EXAMINER, for publication.

The Society then adjourned to meet in Martinsville on the first Wednesday in November next.

F. R. PAYNE, President.

J. D. MITCHELL, Secretary.

FOX RIVER VALLEY MEDICAL ASSOCIATION.

The regular quarterly session was held at Turner Junction, DuPage County, Ill., July 1st, 1867. Present—Dr. Winchester, President of the Association, and Drs. Jassoy, Young, Hawley, Patterson, LeBaron, Beggs, Crabtree, Tefft, Burbank, Goodwin, Olson, and Tyler.

The meeting was called to order by the President. Dr. Hawley was elected Secretary *pro tem.*

The minutes of the last meeting were read and approved.

On motion of Dr. Young, Dr. Tyler, of Massachusetts, was invited to a seat with the Association, and to join in the discussions.

Dr. Young proposed Dr. R. J. Patterson, of Batavia, as a member of the Association. He was elected, and with Drs. Beggs, Olson, and Burbanks, signed the Constitution and By-Laws, and paid the fees which constitute them full members.

Dr. Hawley, Chairman of Committee on Revision of Consti-

tution and By-Laws, reported progress, and asked for further time in behalf of the Committee, which was granted.

Dr. Patterson presented a written communication, containing some hints on giving testimony in Courts, in cases of monomania and moral insanity. His large experience among the insane added much to the interest with which the paper was received, and to the interest of the general discussion of the subject which followed, by most of the members present.

Dr. Jassey moved a vote of thanks to the Doctor for his communication, and that he be invited to continue the subject at future meetings, which motion was unanimously carried.

Dr. Burbank reported a case of hepatic abscess, in which there had been a discharge of about fifty gall stones, of the size of a half-pea, and under. These stones showed, upon analysis, a composition of cholestrine, mostly. Result, recovery.

Dr. Goodwin reported a case of insanity, attended by many and long continued delusions on some points. A *post mortem* showed the organic disease of the patient to be mainly in connection with the stomach and liver.

Dr. Olson reported a case of paralysis, in an aged person, attended with a singular manifestation of external heat for many days before death.

Dr. Young reported a case of fracture of the humerus in a lady 84 years of age, in which perfect unison was obtaiued.

Dr. Hawley reported a case of compound comminuted fracture of the tibia, and recovery without suppuration. Patient aged 55, Also, a couple of cases of bronchitis in persons of a consumptive tendency, which were of interest mainly from the marked improvement which followed a change of treatment from neauseant and anodyne to stimulant and anodyne.

Dr. Young called attention to some recent observations of Drs. Davis and Johnson, tending to prove that alcoholic medicines lowered the force and frequency of the pulse, and also the temperature of the body, which called forth considerable discussion upon alcohol in general.

Dr. Beggs was named as Essayist at the next meeting, which takes place the first Monday in October, at Turner Junction.

On motion of Dr. Burbank, Association adjourned till the above date. S. B. HAWLEY, M.D., Secretary *pro tem.*

JACKSON COUNTY MEDICAL SOCIETY—FIRST REGULAR MEETING.

The Jackson County Medical Society met pursuant to adjournment of the primary meeting in Carbondale, Ill., July 3d, at 10 o'clock A.M.

Dr. James Roberts, in assuming the Chair, remarked that he was much gratified by the honor conferred upon him in his election as President. He hoped he was only the first of a long line of Presidents which should occupy the Executive Chair of a Society increasing in numbers and wisdom, as its years increase.

The minutes of the primary meeting, including the Constitution and By-Laws, were read.

Upon motion of Dr. Ormsby, Dr. Roberts was requested to present to the Society, at its next regular meeting, an essay on the subject of Milk Sickness, to which request he acceded, and, in so doing, expressed the hope that members of the Society would enhance the value of the paper, by preparation for a full discussion on the subject, from the standpoint of each one. He had been engaged in practice in this vicinity for nearly thirty years, and was well aware that the disease in question merited our attention from the fact that it is not ten or twenty miles distant, but is here, as it were, at our very doors.

Dr. Ormsby rose to explain, that notwithstanding Dr. Roberts was to present a paper to the Society at its next regular meeting, it would be not only proper, but highly desirable, that any other members should present such papers and reports of cases as they deem proper to lay before the Society, and he hoped that no member would allow his native modesty to prevent his being heard from. Modesty does not often kill individuals, but it sometimes takes all the vim out of a Society.

Dr. Roberts called attention to the fact that the editor of the Carbondale *Era* has offered to publish any notices for the Society gratis, and has requested a "resume" of our proceedings for publication. He thought it might be well to furnish a short account of our meeting to the *Era*, as a reminder to our professional brethren that such an organization as the County Medical Society is in existence.

On motion of Mr. Ditzler, the Secretary was instructed to furnish a "resume" of these proceedings, together with such extracts from the Constitution and By-Laws as he may deem proper, to the *Era*, for publication.

On motion of Dr. Ormsby,

Resolved, That a copy of these proceedings be sent to the CHICAGO MEDICAL EXAMINER.

After a desultory discussion upon the subject of Medical Education, in which the recent action of the "Convention of Teachers of Medical Colleges," was heartily and unanimously proved, the Society adjourned.

O. B. ORMSBY, M.D., Secretary.

Foreign Correspondence.

TREATMENT FOR SEA-SICKNESS—LIVERPOOL HOSPITALS—SCHOOL FOR NURSES—ENGLISH COUNTRY SURGEONS, MANNER OF CONDUCTING BUSINESS—LONDON—NEW ANÆSTHETIC IN USE—DANGERS OF CHLOROFORM.

LONDON, July 5th, 1867.

Conformably to my promise, I drop you a few lines respecting my observations upon this side of the water. I took the steamer *City of Paris*, for Liverpool, on the 15th ult. As the weather proved calm, I had no opportunity to make discoveries on that soul and stomach stirring subject, sea-sickness. By conversing with the ship's surgeons and others, I judge that all

the numerous remedies for this nuisance, so far as they have any beneficial effect, may be reduced to two classes:—1st. Stimulants to the mucous membrane of the stomach, and to the nervous system. Essential oils, chloroform taken internally, brandy, aromatics, and other irritants seem to occupy the attention of the nervous system somewhat, and have a moderate tendency to obviate the nausea. A strong mental impression has the same effect.

2d. Cathartics, which act on the portal circulation, are very positive in their influence. Persons very subject to sea-sickness often take a voyage in entire comfort by the following precaution:—Take ten grains of blue mass the night before embarking; follow it the next morning with a brisk cathartic of Seidlitz powders. A voyage at sea is almost always constipating in its effects, and a repetition of the medicine once or twice on the passage may be necessary.

On my arrival at Liverpool, I spent a few days in examining the hospitals of that city. There are three general hospitals, all supported by private charity. In addition to these, there is a dispensary, and a large hospital in the workhouse. These institutions are attended by skilful men, and are a great public benefit. I may say, however, that I have not seen, in Philadelphia, New York, Liverpool, or London, more than one well-ventilated hospital. The Middlesex Hospital, London, is the only one I have found where the surgical patients receive air at all approaching in purity that which I have always had for my patients in Mercy Hospital, Chicago.

In one of the Liverpool hospitals, there is a school for female nurses, who take a training for twelve months. They then compensate the institution by giving to it a certain portion of their wages for the next two years, towards the hospital fund.

On my way from Liverpool to London, I stopped at the beautiful, little old town of Warwick. We have here Warwick Castle, in complete repair, with its great hall full of old armor and other relics. Near by, are the ruins of Kenilworth Castle, the scene of Scott's novel, "Kenilworth," as well as Stratford-upon-Avon, Shakespeare's birthplace, and numerous other spots

of antique interest. I was here most hospitably entertained by Surgeon NUNN and his family. Mr. NUNN (surgeons are called Mr. in England) is in a very active and successful practice in and around Warwick, where he stands deservedly high in public esteem. It may not be known to all your readers that the surgeons in small English towns are general practitioners, though called surgeons. As a rule, they ride about, visiting patients of every kind, like an American physician, but they do not have to ride so far, and I am gratified to say that they have much better roads to go on than we. The surgeon keeps a stock of medicines in his house, and having seen his patient, returns and sends the medicine by a messenger. It is difficult to compare their rate of compensation with ours, on account of the manner in which it is collected. As a general rule, there is no charge made for the visits, but the whole expense is put upon the medicines. The patient is charged a certain rate for every two pills, so much a-piece for powders, and so much for a draught, etc. As a class, the country surgeons are well trained and perfectly competent.

A new anæsthetic, or rather a new attention to one previously proposed, is being pressed upon the profession in London, by Dr. PROTHEROE SMITH, of the Hospital for Women, and, from the experiments thus far made, there is reason to hope that it may combine the energy of chloroform with the safety of ether, besides being much more agreeable to inhale than either of them. Its production in a crude form is easy and cheap, but its complete purification is rather difficult. I subjoin Dr. SMITH's description of the method.

The tetrachloride, or, as it used to be called, the bichloride of carbon, [Sir James Simpson has concisely termed it "chlorocarbon,] is the highest of a series of chlorides of four grades, as follows:

C=12	C=6
1. Protochloride of carbon, CCl_2	1. Subchloride of carbon, C_4Cl_2
2. Dichloride of carbon, C_2Cl_4	2. Protochloride of carbon, C_4Cl_4
3. Trichloride of carbon, C_2Cl_6	3. Sesquichloride or perchloride of carbon, C_4Cl_6
4. Tetrachloride of carbon, CCl_4	4. Bichloride of carbon, C_4Cl_4

The subjoined table exhibits at a glance some of their physical properties:

.....	Usual Condition.	Boiling Poi't, C,.....	Freezing p't, C,.....	Specific gravity, ...	Sp. gr. of Vapor,.....	Soluble in Alcohol, Ether and Oils.	Insoluble in Water, Acids and Aqueous Alkalies,.....	Action on the Skin and Mucous Membrane.
Protochloride of carbon...	Crystals.	.....	.....	.....	.....	In ether	.....	.....
Dichloride.....	Liquid.	122°	Liquid —18°	1·619	5·82	In all.	Yes.	Taste first intensely sweet and pungent; afterwards bitter.
Trichloride...	†Crystalline	182°	.....	2·	8·157	Ditto.	Ditto.	.....
Tetrachloride	Liquid.	77°	—27°	1·56	5·3	Ditto.	Ditto.	Very slight on mucous membrane; on skin none.

†There has been obtained an isomeric liquid Trichloride, the vapor of which has a density of 4·082.

From this table it will be seen that the tetrachloride, from its superior volatility, is the only known chloride of carbon suited to administration by inhalation.

Of the numerous methods of preparing the tetrachloride of carbon, that devised at the Royal Institution by Messrs. Frankland and Duppa appears to be the simplest and most economical. The following is a brief outline of the process:

A Woulfe's bottle is filled to rather less than one-fourth of its capacity with bisulphide of carbon, to which has been added either a little sulphur, or, what is better, bichloride of sulphur; one per cent. of either of the above substances will suffice. A stream of perfectly dry chlorine is now passed through the mixture, and continued until no further absorption takes place; this occurs when the liquid has increased to about four times its original volume. As the liquid in the bottle becomes very hot during the process, means for keeping it cool must be resorted to.

The brownish red liquid produced now consists of tetrachloride of carbon and tetrachloride of sulphur saturated with uncombined chlorine. Were water simply added to this liquid a large deposit of sulphur would take place, hydrochloric acid, sulphurous acid, and sulphuretted hydrogen being procured at the expense of the tetrachloride of sulphur, and a large quantity of tetrachloride of carbon set free; but as tetrachloride of sulphur, when brought into contact with bisulphide of carbon, is found to yield tetrachloride of carbon and bichloride of sulpur, according to the subjoined equation:

$4\ S\ Cl_4$	+	$C\ S_2$	=	$C\ Cl_4$	+	$6\ S\ Cl_2$
Tetrachloride of Sulphur		Bisulphide of Carbon		Tetrachloride of Carbon.		Dichloride of Sulphur.

advantage of this reaction is taken, and a certain quantity of bisulphide in small portions is gradually added, and the whole submitted to distillation. After three or four rectifications the liquid separates into two portions, one consisting of tetrachloride of carbon, containing a little bichloride of sulphur and the other of bichloride of sulpur containing a little tetrachloride of carbon. The impure tetrachloride is now treated with water and milk of lime distilled, when the substance nearly pure distils over with a little water: a rectification or two *per se* will suffice to obtain it in a state of absolute purity.

Messrs. Hopkin and Williams, of New Cavendish-street, who have succeeded in producing a very pure specimen of the tetrachloride of carbon according to

the above-described process, have found that, before its final washing, the addition of a little ammonia very much improves its character, and helps to deprive it of the last traces of bisulphide of carbon and chloride of sulphur.

A specimen having been obtained from the laboratory of the Royal Institution, about half a drachm on a handkerchief was inhaled. Its vapor was found to be agreeable, having a delicate perfume not unlike that of quince, and imparting at first a sensation of coolness to the throat, similar to that experienced in drawing in one's breath after taking peppermint, followed by a feeling of warmth on the surface of the body generally. This was succeeded by a feeling of calmness and freedom from the exhaustion which had previously been felt, and which did not return during the remainder of the day: and sleep that night was more sound than usual. The experiment was repeated on the following day, with similar results. On March 23d, having obtained a perfectly pure specimen of the fluid, twenty minims on a handkerchief were inhaled, repeating the dose when it had evaporated. Its anæsthetic effects were very rapid, preceded by an agreeable sense of drowsiness &c., and other sensations similar to those which I have experienced from chloroform, but in a less degree, and giving place in about two minutes to calm sleep, after which scarcely a minute elapsed before the return of complete consciousness. Sleep was again calm and undisturbed through the succeeding night. With the assistance of Dr. Heywood Smith its effect on insects and some of the lower animals was tried. In the case of insects it was found that whereas chloroform, when dropped on their heads, was quickly fatal, they soon recovered when the tetrachloride in like manner was employed.

Dr. SMITH has now given this article about one hundred times. His conclusions are these:—It is a powerful anæsthetic, but when pure does not sicken the stomach nor excite cough in administration; it is more prompt than ether, but slower than chloroform in its action. In the inferior animals he has pushed it to a fatal result, in order to observe the effects. From his observations, he concludes that, while chloroform is apt to cause death in a sudden and unexpected manner, giving no opportunity for precaution, the tetrachloride of carbon, when pushed to fatal extent, brings on its results gradually, giving opportunity to regulate the quantity and avoid the danger. He finds it extremely useful in the Hospital for Women, as an anodyne for headaches, and as a sedative to hysterical excitability.

In my opinion, this article promises to become of great value, but further experience is necessary, in order to test the question of its relative safety. Its delicate, fruity odor, and its un-irritating, un-nauseating character are great advantages, if it shall prove to have the safety of sulphuric ether. Dr. SMITH gives it in an inhaler instead of upon a napkin.

The English surgeons universally use chloroform instead of sulphuric ether in their operations. They keep no statistics of

the results, but when I question them upon the point, they generally say that deaths occasionally occur, but so rarely as to be of little consequence. I have, however, carefully pushed my inquiries among the officers of the various hospitals, and I am of the opinion that they seldom exceed two thousand administrations of chloroform without a death occurring. I am carefully gathering statistics upon this point, and shall have something further to say about it in a future letter.

Yours very truly, EDMUND ANDREWS, M.D.

23 Cecil Street, Strand, London.

Selections.

INDISCRININATE USE OF ALCOHOLIC STIMULANTS IN DISEASE. A Lecture Delivered at Guy's Hospital, London.

By SAMUEL WILKS, M.D., Physician to, and Lecturer on Medicine at the Hospital.

In drawing your attention to the case of bronchitis, and the good results which followed the discontinuance of stimulants after I had at first ordered them, let me impress upon you the importance of always seriously considering the advisability of alcoholic treatment before you have recourse to it. To my mind, the most important question in therapeutics at the present day is the value of alcohol in disease. Because this agent is made use of daily by a large part of the community as an article of diet, its administration in disease is treated too often with carelessness, and it thus forms, without a due consideration of its action, one of our commonest prescriptions. If it be said that its frequent use is an evidence of its potency, this is the more sufficient reason why its administration should be watched with the extremest care.

You know it is not decided in what manner alcohol exactly behaves in the animal economy; the proof is wanting that it is a food for the lungs, whereas its direct effect on the nervous system is evident. A want of knowledge of the precise changes which it undergoes in the system is, however, no argu-

ment against its use, since its advantages must be discovered from experience alone. If the taking a stimulant restores a flagging nervous force, and so adds fresh life to the various organs of the body, a benefit may have been received; and thus most of us are brought up in the habit of taking our glass of wine, and feel ourselves refreshed. Since the active agency in many of our stimulating drinks is alcohol, many persons have recourse to spirits in order the better to obtain its influence, and thus brandy may become with them a regular article of diet: the necessity for some stimulus being assumed, if malt liquor or wine be supposed to disagree, some brandy and water is drunk instead.

I am not going to enter upon the much-vexed question as to the necessity for the daily use of wine or spirit; but I will say that the usual test for the advantges of its use is one which I conceive to be in most cases utterly valueless. Alcohol, remember, although an excitant, is a sedative to the nervous system—is, in fact, an anæsthetic. A drunken man may be injured in such a way as to have all his teeth knocked out in a brawl, yet apparently not perceive the injury, and be utterly unconscious of the occurrence when he has returned to soberness. The argument, therefore, that a man feels better after his glass or two of grog would be equally applicable to the case of the Turk, who feels better for his opium. His feeling better simply means that he has got rid of his unpleasant sensations, whether these be moral or physical; he "drowns his trouble in the bowl." If a man engaged in the practice of his profession, mercantile business, or even pleasure, such as boating, cricketing, or shooting, intends to assert that he can pursue these respective objects with more success after he has taken a stimulant, then he may have an argument in favor of its use. If, however, it be admitted that during the active pursuits of the day a stimulation to the nervous system is injurious, but that after the fatigues are over the body must be recruited, and that a proportion of alcohol is beneficial, I have nothing to say against it, should experience speak in its favor. I repeat, however, that in the majority of instances where a man's reason for taking his wine or spirits is of no better kind than he feels better for it, the reason is utterly valueless; indeed, it may generally be assumed that whilst his feelings are benumbed his organization is being injured. The argument is no better in favor of the use of wine or other stimulant in disease—as, for example, that it must do good, since the patient craves for it. The question of the advantages attending the daily use of

beer, wine, or spirits, although a difficult one to solve, is one which you cannot evade considering, since the health and welfare of families may depend upon your judicious decision. You may recommend wine with advantage to members of certain families having peculiar temperaments, while should you advise it for others you may unwittingly be sowing the seed of ruin of mind, body, and estate.

The subject of the different temperaments of your patients and their mode of life is one which is well worth your study; but the matter I wish now to strongly enforce upon you is that you are as thoroughly to consider the propriety of the administration of alcohol as you would any drug in the Pharmacœia. Endeavor, if you can, to erase from your minds that it is a proven fact that alcohol is a tonic or a necessary part of every one's beverage. This is assumed by a large mass of people; and the meaning of the question which your patient puts to you when he says, "What shall I drink?" is not, "Shall I take a stimulant or leave it alone?" but "Shall I drink beer, wine, or spirits?" He often confesses that he is in a great difficulty; he finds none of them agree with him; but that he must take "something" appears as necessary as eating his daily bread; the alternative never having formed part of his calculation. I say it is assumed that a strength-giving property lies in these drinks—that just in proportion to a man's feeling of weakness, so will he require one of them: in ordinary health he may not only want his beer; but if ill, his wine; and if very ill, his spirits. Now this popular opinion is shared in, I am sorry to say, by many in the profession: if the patient is weak he wants "support," this term carrying too frequently with it the necessary idea of wine or spirits. I should be sorry to say that the doctor panders to the public taste, since he is too often already in accord with it; but the consequence of such agreement between patient and medical man resolves itself into this, that an extra stimulant is prescribed. You might ask to what complaints do I refer when I speak of this too common advice; but I need only repeat the word "patient," for it matters little what is the nature of the disease, since the reasons for the treatment are applicable to all complaints, and are founded on this simple proposition: all persons who are ill are weak; they have lost strength; they require it to be restored; alcohol is a supporter and a tonic, therefore alcohol is a remedy for all diseases. This is no parody, for I have heard the argument set forth in some such words; and practically it is adopted by many, for I constantly hear medical men say they give brandy

to all their patients, for they always find them "low." Brandy, indeed, becomes with some as much a universal remedy as revalenta, chlorodyne, Morison's pills, or any other quack medicine. Moreover, it is a medicine of which the patients approve, assuming as they also do its supporting and strength-giving powers. You therefore cannot do better, if you fear no compunctions in converting your profession into a mere trade, to say to all your patients, after feeling their pulse, that they are very low—that you are sure they do not take enough; and order them several glasses of wine daily. Should they be exceedingly ill with some desperate organic complaint, then you must turn your remarks to the friends, and speak of the necessity of supporting the patient by giving him as much brandy as can be poured down his throat. By this method you are sure to give "satisfaction:" for should the patient die without such treatment, you may have the credit of letting him slip "through fingers;" whilst, if he die with it, you have done your best. If you kill a dozen patients with brandy, you need have no fear—"you have done your best." This, I say, would be a very comfortable and lucrative mode of practice.

It may very fairly be asked, if alcohol be so potent a remedy that it can supersede all drugs in so many several cases of disease, is not this a reason why brandy-treatment should be adopted with some consideration? The want of caution in its use is owing, no doubt, to its entering so frequently into the daily diet; and thus alcohol is not reckoned amongst the same class of agents as that of medicines. On the bed-cards in this hospital there is one column for the medicines, and another for the diet. Before filling up the one, we discuss the benefits of giving our patients a few drops of henbane or ether; and in the other column we often write down any number of ounces of brandy with very little thought of its effect. If alcohol were transferred to the medicine side of the card, we should be more likely to discuss its value in any given case in the same manner as we do the various drugs in the Pharmacopœia.

It would require a whole course of lectures to dwell upon the beneficial or baneful effects of alcohol in all forms of disease; and, therefore, I will state, as a result of my own experience, that, like other drugs, it may be beneficial, useless, or harmful. I may remind you of what you yourselves have witnessed—that fevers will do well without this remedy. So wedded, however, are some to the idea of the absolute necessity of stimulants, that they have expressed almost incredulity when they have heard it stated that fevers will terminate favorably without

them. Of course stimulants are often needed; but young persons with typhus and typhoid do far better, I believe, without them. That they make good recoveries on simple milk diet is a fact which my hospital cases prove, and which no arguments can gainsay; and, on the other hand, I have seen a marked improvement take place in some cases where a stimulus had been left off, It is also a fact that in bronchitis I have repeatedly seen improvement after stimulants have been omitted; and, as regards heart-disease, I am convinced that the amount of mischief done by stimulants is immense. In the case of fevers and bronchitis, the weak pulse is often but an indication of extreme capillary congestion, and a stimulus to the heart only aggravates the evil; and in the case of a diseased and weak heart, where repose is indicated, a constant stimulation by alcohol adds immensely to its trouble.

It causes me daily surprise to observe how the effects of stimulation are overlooked. Often have I been called to see a patient apparently dying, sometimes of a nervous disorder, at another time of a liver complaint, and at another of heart-disease. He is lying in bed, where he (or she) has been for some time, and kept alive (as it is said) by brandy; the breath is abominably fetid; the heart's action is so rapid that it is impossible to say whether the organ is diseased or not; the patient refuses food, or if this be taken, it is rejected, and so he is plied with brandy to keep him alive; the body is, in fact, saturated with spirits, or its elements. My first remark on seeing such a case is, that a man cannot live on alcohol; he must take some food or he will die. The correctness of such common-sense remarks is admitted, but qualified with the statement that no solids can be taken, and that if stimulants be omitted it is feared the patient will sink. It is assumed that the constant administration of brandy is necessary for the temporary maintenance of life, and the idea never seems to have been conceived that the stimulation of the heart causes the weak, fluttering pulse, and the stimulation of the stomach a subacute gastritis. Do you ask me what method I adopt? The simplest possible. I withdraw every drop of the stimulant, and in a few hours the irritated stomach is partly restored to its normal condition, the nervous excitement abates, the patient takes a little food, and begins to mend. Do you ask, again, whether I do not fear any frightful result from the sudden withdrawal of the stimulus? I say, not the least; I have no fear of the consequences. Not of delirium tremens? Not in the least. This is a disease not induced by the withdrawal of stimulants, but, on the contrary, is produced

by a recent debauch. For the production of delirium tremens the patient must have been such a habitual tippler as to have weakened his brain, and must then have had an overdose of the stimulant to set up the disease. There are no facts to show that the withdrawal of the accustomed drink is attended with any evil results, although I know that an imaginary fear of this kind leads to an erroneous and vicious method of treatment—the plying the patient with a stimulant during the violence of the attack, the effect of which is to prevent or prolong the cure. Rest and repose, with the avoidance of stimulation, is the treatment which the patient requires. So success of digitalis may be mentioned in corroboration of this view. I repeat that there are no facts to show that delirium tremens is produced by the withdrawal of stimulants, whilst it is a fact, as I could illustrate by many cases, that nothing but good results from its absolute discontinuance in the desperate cases to which I have alluded.

That many cases of disease of various kinds would do far better without stimulants I am perfectly confident. But lately I have seen the case of a gentleman, about sixty years of age, who passed through a most severe attack of pneumonia without the use of stimulants. He had been a tolerably free liver, and would not have been called a good subject; but having before me the case of another gentleman of the same age, who had just died of pneumonia, and who had taken a large quantity of brandy, I readily acquiesced in the patient's own view, that none should be given. It is very remarkable what extremes we have reached, and on how slight a scientific bases is founded the treatment of pneumonia. Not many years ago the antiphlogistic method was adopted, including bleeding, antimony, calomel, etc.; then came the "let alone" method; and now we have the brandy treatment. What the need of this can be, with Professor Hughes Bennett's statistics before us, I do not comprehend. My own opinion is (but of course this is only an opinion) that in any given number of cases a larger majority would recover under the old antiphlogistic treatment than by the more modern remedy by brandy. As regards heart-disease, the utmost discrimination is required in the use of stimulants. There are cases where an undoubted benefit is produced by them; but there are others, and these I have seen repeatedly, where alcohol has induced palpitation, fluttering, great distress, and constant sleepless nights, but where, on the other hand, the withdrawal of the spirit, and the substitution of a dose of digitalis or henbane, has been of the most essential service. The administra-

tion of a stimulus, in the attempt to overcome disease, in lieu of good and well-tried remedies, evinces the very worst form of medical scepticism with which I am acquainted.

It is not only in these severe cases of disease, but in lesser troubles, that your recommendation of stimulants may do incalculable mischief. You visit, for example, an ailing lady, and she details to you a number of troubles of a nervous and dyspeptic character. She is sitting in-doors all day, taking no exercise, living well, and consequently drifting into a weak and flabby condition. You place your hand on her pulse, and, finding it feeble, condole with her on her state of health, assure her that she does not live well enough, and order her a few extra glasses of wine or a little brandy.* You find that she grows no better for the advice; but perhaps you never reflect that you have been adding fuel to the fire. Knowing not what to do in the way of treatment, you order her out of town, and she immediately begins to improve. She goes to Brighton, rides on horseback, or walks miles a day on the Parade, regains her appetite, craves less for stimulants, and her health is restored. If, on the contrary, you fail to remove her from her home, she goes on from bad to worse; she takes to her bed, eats less food, drinks more wine and brandy, until, having become one mass of fatty degeneration, life can hold no longer, and death ends the scene. This lady has been killed with kindness. This is no imaginary case; my mind's eye carrying me to the bedside of more than one such instance. Do not then assume that alcohol is equivalent to a tonic, and that it must be necessarily administered because your patient is weak. It may be that very weakness is due to the long-continued pernicious effects of this same stimulant; indeed, as you have often heard me say in the out-patient room, if a man comes into our presence with a tottering gait, bloated face, and his nervous energy all gone, you may be quite sure that he has been taking "strengthening" things all his life.

I will say no more on the subject, as I do not wish to speak demnatory of alcohol as a remedy, since it is one of the most powerful agents we possess to rouse the dormant nervous power.

* The word "little," it must be remembered, has long ceased to maintain its original signification in reference to eating, drinking, and physicking. It would be extremely vulgar were we to be asked at our dinner-tables to take otherwise than a "little" more; and the doctor would not be forgiven by his patient, were he, in detailing the ingredients of his prescription, to state that he had administered the regular dose, but that he had given only a "little" of this or that. When, therefore, a patient is ordered a "little" brandy, the adjective in no way qualifles the amount.

Moreover, I do not wish to speak too dogmatically of its ill-effects, fully aware that there are many holding very distinguished positions in the profession whose opinions are not in accordance with those I have expressed. Were it not for this reason, I should have used still stronger language than I have done; for even firm convictions must be restrained, when we know what an amount of contrary opinion can be arrayed against us. It is, nevertheless, the duty of every one to express his own conviction when that is based on experience, and thus I shall ever feel bound to withstand the indiscriminate use of stimulants in disease.

Whatever may be thought of the remarks just made, there is one thing which I must insist upon—that is, when treating any malady, and the administration of alcohol is suggested to your mind, that you give the same grave consideration to its recommendation as you would to any other potent drug in the Pharmacopœia; not to sit down and give all your serious thoughts to the question of whether a grain of this or a grain of that drug should be ordered, perhaps twenty or thirty drops of ether, and then at haphazard order any loose number of ounces of brandy. You observe that I say nothing against the potency of alcohol in several states of disease; but I do speak strongly against its indiscriminate use, without due consideration of its need or of its results. My arguments would equally apply did I find that opium or any other drug were indiscriminately used as a universal medicine. I should protest against the practice, whilst still possessing great faith in the virtue of the drug. If I can influence you to place alcohol in your list of drugs, so that you may administer it with the same caution as you do the several articles in the Pharmacopœia, then the object of these remarks will be fully answered.—*London Lancet.*

Book Notices.

On Railway and other Injuries of the Nervous System. By John Eric Erichsen, Fellow of the Royal College of Surgeons; Professor of Surgery and of Clinical Surgery in University College; Surgeon to University College Hospital; etc., etc., etc. Philadelphia: Henry C. Lea. 1867.

This is a neatly published monograph of 103 octavo pages. It comprises six lectures delivered to the students attending

the University College Hospital in the spring of 1866. The first lecture is mainly introductory, and relates to the importance of injuries of the spine and the different views concerning them. The second treats of the effects of severe blows on the spine. The third, of concussion of the spine from slight injuries. The fourth, of concussion of the spine from general shock; and of twists and wrenches. The fifth, of the symptoms and pathology of concussion of the spine. The sixth, of the diagnosis, prognosis, and treatment of injuries of the spine.

Throughout the work, the lecturer has reference to such injuries and concussions as result from railroad accidents and casualties. The frequency of such accidents renders the present work timely and important, to all classes of medical men.

For sale by W. B. KEEN & Co., 148 Lake St., Chicago.

Editorial.

CHICAGO MEDICAL SOCIETY.—The meetings of this society, which have been comparatively well attended during the past year, are now being held once in two weeks. During the past six months, while the meetings have been held once a week, many very interesting specimens of pathological anatomy have been presented, chiefly by those members connected with the public hospitals. The relation of cases, and the discussion of questions of direct practical importance have occupied the chief attention of the Society.

At the last meeting, Dr. EARLE read a report on the treatment of angular curvature of the spine, embracing several cases, with photographic representations of different stages of improvement while under treatment, and an exhibition of the mechanical appliances resorted to with great benefit. The mechanical treatment pursued by Dr. EARLE is essentially the same as that recommended in the small works of Drs. TAYLOR, of New York, and LEE, of Philadelphia.

Dr. DANFORTH, presented a tumor which had been removed

from beneath the chin. It had been over seven years in growing from the size of a small pea to that of a large hickory-nut. It consisted of a dense inorganic formation, apparently of lime, enclosed in a cyst or membrane, with a small quantity of serous fluid. Before removal, it was freely moveable under the skin, and had never occasioned pain or soreness.

Dr. LACKEY reported a case of gunshot wound, in which the ball wounded the median nerve of the arm. After the wound had cicatrized, the hand remained paralyzed and extremely painful, indicating, as was supposed, pressure on the nervous cord at the place of injury. An operation was resorted to, but instead of finding anything pressing on the nerve, close search disclosed a small piece of the lead from the ball imbedded in the nerve. This was removed, and the patient recovered both from the pain and paralysis. Dr. L. thought many of the cases of pain and paralysis following wounded nerves might be the result of the presence of a foreign substance instead of pressure.

Dr. LYMAN related a case seen by him in the Massachusetts General Hospital, in which an elderly woman had the fore-arm amputated below the elbow, for the removal of a paralyzed and terribly painful hand, with which she had been affected four or five years continuously. It had been produced by part of a needle retained in the palm of the hand. Dissection of the hand disclosed half an ordinary sewing needle imbedded beneath the palmer fascia, in such position that each end was in contact with a nerve.

Dr. BRINK read a short paper on the etiology of goitre, suggesting that iodine taken in the various articles of food, etc., was the special cause of the disease.

At a more recent meeting of the Society, Dr. H WANZER reported an interesting case of concussion of the brain from a blow, followed by the discharge of a large quantity of blood, and protracted paralysis of the nerves supplying the muscles and coats of the eyes. This led to an interesting discussion, which was participated in by Drs. Durham, Hildreth, Bogue, and Wanzer. Dr. Hildreth, who saw the case some time after the injury, said it presented a well-marked case of anæsthesia

of the cornea, accompanied by contraction of the pupil, which was relieved by atropia. Dr. Bogue, who attended the patient after he was removed to the County Hospital, thought there had been neither fracture of the skull nor effusion of blood forming a clot on the brain, but that the concussion had seriously disturbed the structure of the brain at the origin of the 5th, 6th, and 7th pairs of nerves. There was at no time decided paralysis of either upper or lower extremities. The patient recovered a fair degree of general health, but the recovery from paralysis of the nerves of the eye and face is incomplete.

Dr. E. L. HOLMES reported a case of amaurosis connected with albuminuria, in which the ophthalmoscope revealed the yellow circular spots and dark granules of extravasated blood, characteristic of such cases. In this case, the rings that are usually yellow were bright red.

Dr. J. S. HILDRETH mentioned a case presenting similar appearances, connected with albuminous urine and pregnancy. He thought the same condition of the retina had also been observed in some cases of diabetes.

Reports in relation to the sanitary condition of the city and the prevalence of diseases, during the months of April, May, and June, were presented by Drs. R. G. BOGUE and N. S. DAVIS. These elicited remarks from Drs. Wickersham, Bevan, and Fitch. One of these reports may be found in the present number of the EXAMINER.

GEORGE K. AMERMAN, M.D.

At a meeting of the Chicago Medical Society, held at the Court House, June 28, Dr. J. P. Ross announced to the Society that a brother member, Dr. GEORGE K. AMERMAN, had departed this life, at Marcellus, N. Y., June 20, 1867. For nearly two years his health had been failing, and in April he had abandoned the practice of his profession, going home to die of consumption. Dr. Ross moved the appointment of a committee to prepare a series of resolutions appropriate to this sor-

rowful occasion. The motion having prevailed, the following gentlemen were appointed by the Chairman: Drs. Ross, Holmes, Bevan, Heydock, and Marguerat. They reported as follows:

Having been informed of the death of their associate, George K. Amerman, M.D., the members of the Chicago Medical Society desire to testify for the deceased their respect, and their feelings of personal loss by these resolutions:

First. That in this affliction we lament the death of one who, long identified with our community, though young in years, was old in professional renown. A man whose life was a career of brilliant success, a Christian in deed, as well as in name, at the height of his reputation, he has now received the crown of immortality.

Second. That to the members of our profession we earnestly commend the example afforded by the life of our departed associate.

Third. That to the surviving relatives of our beloved friend we tender this expression of our sympathy in view of their bereavement, ever desiring with them to bow in humble acknowledgment of the almighty power of that God in whose hand are the issues of life and of death.

Fourth. That a copy of these resolutions be furnished to the relatives of the deceased, and to the medical journals and daily newspapers of the city.

The report of the Committee was accepted.

Dr. Ross then read a technical history of the last illness of the departed brother.

Dr. J. R. Gore, who had known Dr. AMERMAN from infancy, being invited to address the Society, proceeded to relate the following interesting facts concerning his friend:

At the time of his death Dr. Amerman was in his thirty-fifth year. The son of a rural farmer in Central New York, his boyhood was distinguished by fondness for study, and by disinclination to the drudgery of farm work. He was obedient and kind, but *good for nothing* on the farm. He early manifested a passion for teaching, and at the age of sixteen his only ambition was to become a school-teacher. His father, however, proposed that he should study medicine. To this he consented. Placed under the guidance of Dr. Gore, then a practicing physician in Owasco, N. Y., he pledged himself to pursue the study of medicine, subject to the direction of his preceptor, for five years before attempting to commence its practice. He accordingly attended three courses of lectures in the University Medical College of New York, graduating with honor in the spring of 1854. Still acting under the guidance of his preceptor, he secured a position for one year on the resident medical staff of Bellevue Hospital. The next year he became a member of the resident surgical staff of the same hospital. There, in the enjoyment of the friendship and confidence of the most distinguished physicians and surgeons of New York City, Dr. Amerman completed the fifth year of his course of study. At once received into partnership by his former preceptor, and removing to Chicago, he commenced the practice of his profession in 1856. He was appointed Surgeon to the Illinois Central Railroad, an office which he filled with great credit until the time of his death. He was also one of the Surgeons to the City Hospital, until that institution was closed during the war, and was the leading spirit in the surgical staff of the County Hospital from the time of its renovation until failing health compelled him to surrender his large and lucrative practice.

After listening to the remarks of different gentlemen who

united in eulogizing the memory of the deceased, the resolutions were adopted, and the Society adjourned.

J. P. ROSS, M.D., President.

HENRY M. LYMAN, M.D., Secretary.

ACTION OF THE HOSPITAL BOARD.

At a meeting of the Medical Board of the County Hospital, Chicago, to take action on the death of Dr. GEORGE K. AMERMAN, the following resolutions were adopted:

Resolved, That the members of this Board have heard, with feelings of the deepest sorrow, the death of their colleague, Dr. Amerman, and desire to put on record their high appreciation of him as a gentleman and a surgeon.

Resolved, That in his death the staff of this Hospital has lost a most efficient member, and one most intimately identified with its best interests; that the profession at large has lost one of its brightest ornaments, and our community a most valuable citizen.

Resolved, That we believe his death was the result of too arduous devotion to his chosen calling, and that he has added another to that long list of glorious martyrs who have given up their lives in the cause of suffering humanity.

Resolved, That a copy of these resolutions be sent to his friends at the East, and to the public journals.

R. C. HAMILL, M.D.,
J. P. ROSS, M.D.,
H. W. JONES, M.D.,
THOS. BEVAN, M.D.,
J. R. GORE, M.D.,
H. A. JOHNSON, M.D.,
R. G. BOGUE, M.D.,
CHARLES G. SMITH, M.D.,
H. M. LYMAN, M.D.,
J. S. HILDRETH, M.D.

NEW COLLEGE BUILDING.—On the 28th of May, the corner-stone of the new building for Rush Medical College, was laid with the usual ceremonies of the Masonic Order. An address was delivered by Prof. J. A. ALLEN, and a very good audience was in attendance. The new building is to be on the same lot, and in direct communication with the old one. The recently appointed Professor of Surgery, Dr. MOSES GUNN, formerly of Detroit, has also taken up his permanent residence in this city.

MEDICAL CONVENTION IN WISCONSIN.—We learn that a convention, embracing a large number of the leading physicians of Wisconsin, was held in Janesville, on the 23d and 24th of July. The object was to excite a more active interest in the social organization of the profession in that State. It is a move in the right direction, and we hope to see it followed up vigorously.

Mortality Report for the Month of June:—

CAUSES OF DEATH.

Below is given the mortality report for the month of June, just ended.

From this report and a comparison of it with the report for the same month of last year, it appears that the city is at the present time in a healthy condition. The number of deaths last year in June was 319—this year 283—decrease, 36.

Accidents,	8	Fever, Typhoid,	15
Asthma,	1	Fever, Child-bed,	7
Abortion,	1	Fever, Ship,	3
Apoplexy,	2	Fever, not stated,	1
Acute gastretis,	2	Hydrocephalus,	1
Burned,	4	Inflammation of Bowels,	5
Cancer,	3	Inflammation of Brain,	4
Cold,	1	Inflammation of Lungs,	2
Croup,	2	Killed,	5
Consumption,	35	Marasmus,	3
Convulsions,	31	Measles,	8
Congestion of brain	2	Osteomyletus,	1
Congestion of Lungs,	1	Old Age,	9
Congestive Chills,	1	Poisoning,	1
Drowned,	12	Paralysis,	3
Decline,	1	Pneumonia,	1
Diarrhœa,	2	Palsy,	1
Diphtheria,	1	Rheumatism,	1
Dropsy,	8	Suicide,	1
Disease of Brain,	2	Spinal,	4
Disease of Heart,	3	Stillborn,	13
Disease of Lungs,	1	Sunstroke,	2
Disease of Kidneys,	1	Small-Pox,	4
Disease not stated,	1	Summer Complaint,	9
Dysentery,	1	Teething,	4
Erysipelas,	4	Whooping-Cough,	4
Fever, Bilious,	1	Unknown,	26
Fever, Brain,	5		
Fever, Scarlet,	8	Total,	283

Total number last year for the month of June, 319

Total number during the month of June, 283
Total number during the month of May, 241

Increase, 42

DIVISIONS OF THE CITY.

North, 64 | South, 91 | West, 124 | Total, 283
Unknown, 4

Ages of the Deceased. — Under 5 years, 139; over 5 and under 10 years, 10; over 10 and under 20, 19; over 20 and under 30, 29; over 30 and under 40, 39; over 40 and under 50, 14; over 50 and under 60, 9; over 60 and under 70, 6; over 70 and under 80, 5; over 80 and under 90, 4; unknown, 9. Total, 283.

NATIVITIES.

Chicago,	143	Germany,	32	Sweden,	7
United States,	23	Holland,	2	Switzerland,	1
Canada,	5	Ireland,	35	Scotland,	2
Bohemia,	3	Italy,	1	Unknown,	16
England,	4	Norway,	10	On Sea,	1

Total, 283

Surgeon J. H. Baxter of U.S. Volunteers.—This active and hard working member of the Medical Staff of the Army, has recently been appointed Assistant-Medical-Purveyor, with the rank of Lieutenant-Colonel in the U.S.A. The appointment has been confirmed by the Senate.

Chlorate of Potassa in Pneumonia.—Dr. J. C. Morley, of Mississippi, recommends strongly the use of chlorate of potassa in doses of from five to twenty grains, repeated every one or two hours, as a remedy in the treatment of pneumonia. We have used the remedy in the treatment of the more severe attacks of pneumonia for eight or ten years past, and with decided benefit.

Money Receipts from June 26th to July 26th.—J. F. Kelsey, Hortonville, Wis., $3; F. R. Payne, Marshall, Ill., 3; F. H. Jennings, Marshall, Ill., 3; Nathan Spencer, Marshall, Ill., 3; Daniel Gard, Martinsville, Ill., 3; Jesse Compstock, Westfield, Ill., 3; J. C. Price, Westfield, Ill., 3; W. S. Goodell, Westfield, Ill., 3; J. D. Mitchell, Darwin, Ill., 3; J. A. Patton, Livingston, Ill., 1 50; Henry Biroth, Chicago, 1 50; John O'Reilly, New York, 3; A. E. Van Deventer, Oswego, Ill., 3; John D. Cope, Fairfield, Ill., 3.

Charity Hospital Medical College,

CLEVELAND, OHIO.

FACULTY.

JAMES DASCOMB, M.D., Professor of Chemistry and Toxicology.
GUSTAV C. E. WEBER, M.D., Professor of Clinical Surgery.
L. FIRESTONE, M.D., Professor of the Principles of Surgery.
W. J. SCOTT, M.D., Professor of the Principles and Practice of Medicine.
R. N. BARR, M.D., Professor of Anatomy.
A. METZ, M.D., Professor of Opthalmology.
J. STRONG, Jr., M.D., Professor of Materia Medica and Therapeutics.
HENRY J. HERRICK, M.D., Professor of Obstetrics and Diseases of Women and Children.
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CONWAY W. NOBLE, Esq., Professor of Legal Medicine.
JACOB STAMP, M.D., Demonstrator of Anatomy.
DANIEL B. SMITH, M.D., Prosector to the Chair of Clinical Surgery.
GUSTAV C. E. WEBER, M.D., Dean.
W. J. SCOTT, M.D., Treasurer and Registrar.

The next Session will commence on Wednesday, Oct. 2d, 1867.

☞ For further information apply to the Dean. aug&sep

THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M.D., Editor.

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Original Contributions.

ARTICLE XXXVII.

CEREBRO-SPINAL MENINGITIS.

By F. R. PAYNE, M.D., Marshall, Ill.

Read to the Clark County Medical Society, July 1st, 1867.

This is a disease with which you are all painfully and practically familiar. It has in the last few years prevailed in many parts of our own county. Our observations clearly demonstrate that we have at least two varieties of this fearful malady, *simple and malignant.*

For the purpose of bringing this disease fully before you, we propose to report two cases of the malignant form, which occurred in one family during the last month, one of which was examined after death.

Case I. *May 29th, 1867, 3 o'clock P.M.* Dr. R. F. Wil-Williams and I were called to see Miss C., aged 8 years, and and found her laboring under the following symptoms: She was well this morning; ate her breakfast; about 10 or 11 o'clock A.M. she complained of being chilly, and had a severe pain in the back of her head, and in her neck, extending down the spine. The pain in head carefully noted, and did not extend above tentorium; the pulse 160; very small, and the surface of the body presented a cyanotic hue; a prickling and tingling sensation in the arms; body very sensitive and hot;

eyes suffused; mind excited; speaks loud, quick, and distinct; extremities tremulous; gasping breathing; very restless; copious perspiration; tongue whitish, or creamy coat, and moist; tremulous sensation in epigastrium, and, in fact, all of the premonitory symptoms of convulsions; evidently irritation or congestion of cerrebellum and spine. These were the symptoms three or four hours after the first chilly sensation.

7 o'clock P.M. Nausea and occasionally efforts to vomit; violent delirium; pupils largely and permanently dilated; extremely restless; right side more effected than left; total loss of consciousness; surface cold; no pulse at the wrist; no action on bowels; rose colored spots, from the size of a pin's head to half an inch and over in diameter; not confluent, and no elevation of the skin; the spots seem to be the broken corpuscles of blood retained in the capillaries; the whole surface on back and chest blue; the spots are constant in all malignant cases; the cyanotic hue of back chest, lips, and eye-lids, we have found present in all violent cases, and after death this condition is increased. All of the symptoms clearly indicate a point with positive certainty to the cerebellum and spinal cord as the seat of disease; she breathes hard, rather slow, and laborious; twitching of the muscles of extremities, and rigidity of the extensors of the back and flexors of fingers and forearms; trismus, or partial closure of the jaw, and difficult deglutition. This was a young, healthy girl, very large for her age; full of blood and life twelve hours ago.

11 o'clock P.M. Symptoms about the same; every evidence of approaching dissolution; complete coma; pupils very large, and not sensitive to light; convulsive movements of right arm and leg; cold and clammy perspiration; her medicine had operated finely on the bowels; breathing rather slow and laborious. It is almost impossible for her to swallow water.

She lived until about 12 o'clock on the 30th, and then died without a struggle. She lived twenty-four hours after the first inception of the disease. The remedial agents used in this case did not seem to exert the least beneficial or controlling influence.

CASE II. *June 3d, 1867.* Another child of the same family, was seized with the same train of symptoms, about 10 o'clock to-day—a boy six years old. When first visited, one or two hours after he complained of being chilly, the symptoms were the same as the first case—if any difference they were more aggravated.

3 o'clock P.M. He is very restless; pupils dilate largely, and then contract; pulse very rapid; skin hot; eyes suffused; tonic spasm of muscles of the superior extremities.

5 o'clock P.M. Surface cold; no pulse at the wrist; pupils largely dilated; cold, clammy perspiration; complete loss of consciousness; in short, nearly the same symptoms as in the first case; the only exception is that about 8 o'clock P.M., this little boy began to halloo and scream terrifically, and continued this until midnight, and then expired.

We have had the misfortune to witness many cases of this awful disease, and feel satisfied that there are more than one variety. At least 96 per cent. of the *malignant* cases die. We are also convinced that many cases are called "spotted fever," in which the cerebro-spinal symptoms are purely sympathetic, caused from reflex action.

For the purpose of more fully bringing this important subject before the Society, we will present some important facts contained in the able, pointed, and valuable treatises on this disease by Prof. J. S. JEWELL. His paper is prepared with great care, and evinces profound research. It is published in the Chicago MEDICAL EXAMINER for October and November, 1866.

Prof. JEWELL has consulted nearly all the writers on this disease in Europe and this country, and the weight of testimony is that it is dependent upon a primary specific epidemic cause, the true nature of which is not known, save in its effects. It may not be external, but internal, or autopathic. Many external causes, singly and combined, have been assigned to this malady. Social misery, foul air, imperfect nutrition, exposure to cold and damp atmosphere, abuse of alcohol, and a host of others, have been pointed out by able medical men, singly and

combined, as not only predisposing, but positive and essential causes. It is known that these external causes do not always produce the disease, it is therefore reasonable to say that it must be assigned to that indefinite and imperfectly understood class of *epidemic causes.*

Our experience accords with Prof. JEWELL. No age is exempt, but the young are the principal victims. Generally it attacks the young, vigorous, and athletic, and it is a pretty well established fact that males are more liable than females. There is no evidence that a hereditary influence plays any part in the production of this disease as an essential cause. It is a matter of much regret that there has not been more frequent examinations of the blood. It has been positively demonstrated that this disease quickly destroys the nervous, vascular, and secretory functions. The capillary congestion is rapidly followed by the developement of serous or purulent infiltration wherever local hyperæmia or inflammation exists. This being true, we feel confident that future investigations will demonstrate a breaking up of the affinities between the blood corpuscles and organized structures of the body. It is very evident that the cause, whatever it may be, of this terrible malady, has a powerful septic or degenerative tendency.

It is supposed by many that the cause of this disease is identical with that of malignant erysipelas in its essential nature. Others think it is a malignant form of scarlatina and typhus. The causes of diptheria and hog cholera are by some supposed to be identical with the cause of this disease. The attack is sudden, and marked; the progress to a fatal termination so rapid; the terrible shock to the nervous system, as shown by the symptoms, all clearly indicate that some powerful poison has been introduced into the system. That the constituents of the blood are changed from their normal condition, is also true, and no external visible primary cause can be assigned for this rapid transition from life to death. We are forced to the belief that some potent, uniform, and yet unknown agent produces the disease.

Dr. JEWELL is of the opinion that it is a disease *sui generis.*

that is essentially different from, and independent of other recognized forms of disease.

Our observations favor the opinion that the agent that produces "spotted fever" is similar, if not the same, that primarally engendered "black tongue," a terrible epidemic that prevailed in this county in 1845–46.

It is almost universally the opinion of men who have had experience in this affection that it is not contagious. It does not conform to a single law of contagion, but does fully conform to the laws of epidemic influence.

The poison, whatever it may be, frequently acts directly on the nerves, but it is not yet known whether it is the changes in the blood or the direct effects of the poison that gives rise to the symptoms and appearances presented in this disease.

The *post mortem* appearances in the second case above reported will be of interest to many. Drs. Gard, Price, Williams and Lodge were present. After removing the cranium we found the diploë of the occipital bone, deeply colored with blood. This was not the case in the other bones through which the saw passed. The dura mater in the back part and base of the brain was in a high state of congestion; in fact, all the meninges in that region of the head and upper part of the spinal cord were in the same condition. The capillaries seemed enlarged and intensely engorged with blood. After being thoroughly soaked in cold water they still presented that red and engorged appearance. The tentorium was also very much engorged; beneath this membrane in cerebellum and around the pous Variola and medulla oblongata we found fully *three ounces* of a reddish serous exudation. There was not an abnormal amount of fluid in the ventricles. The nervous substance was healthy, and the membranes in the upper part of head and cerebrum were apparently in a normal condition. All the evidence of disease was found in base of brain and cervical portion of the spinal cord. He was a healthy, athletic boy, very large for his age. Before refering to the therapeutic history of this disease we will briefly present some of the pathological deductions, and in so doing will consult the able monograph of Prof. JEWELL.

First. The symptoms which refer to the nervous system are always present; but in many cases they are much milder than in the two cases above.

Second. The pathological appearances found in the cerebro-spinal cavity are in *some degree* always present, and in all malignant cases in a marked degree.

Third. The monographs of Europe and this country, examined by Prof. JEWELL, teach that the blood shows a decided increase of fibrine, and generally of corpuscles. After death the blood is more fluid and dark than customary.

Fourth. It is not a form of typhus.

Fifth. It is not contagious, but probably infectious.

Sixth. It is caused by a special external epidemic poison.

Seventh. This supposed cause acts on the nervous system and blood, and destroys life by its septic or degenerative tendency in a few hours.

Eighth. The disease or its primary cause may be modified or influenced by malaria or periodical diseases.

With our present pathological knowledge, aided by the experience of able men in this country and Europe, what are the best indications for treatment?

The physician, when called to a malignant case, and sees the rapidity with which the nervous, vascular, and secretory function are destroyed, the blood looses its organic and vital power by the action of some morbid and energetic poison, which is, if not controlled, bound to quickly divorce soul and body. With our present knowledge of the disease we cannot fail to doubt the power of remedial agents to stop the mischief.

The indications for the treatment of this disease are:

First. To equalize the circulation, and thus prevent, if possible, local hyperemia, especially of the meningis of cerebellum and spinal cord.

Second. To quiet the irritability of the nervous system, and, if possible, introduce into the system some anteseptic which will neutralize or in some way counteract the deleterious effects of the epidemic poison, which is supposed to be the primary cause of the disease.

If the local hyperemia is not speedily removed the distension and extreme congestion of the capillaries of the membranes of the cerebellum and spinal cord will, as in the above case, result in effusion, and that within twelve hours. In these cases the plethora is asthenic, and experience does not teach us that blood-letting will recall the lost tone of the over-distended vessels. Our experience accords with a great majority of the observers of this disease, both in this country and Europe, that blood-letting is inadmissible. Local bleeding may in some cases do good, by cups and leeches along the spine.

The physician, when first called to a case, and finds a quick pulse; eyes suffused, and symptoms of great cerebral excitement, and apparently general congestion, is impressed with the belief that general blood-letting would be beneficial; but the weight of experience is against its employment. It seems to be pretty generally admitted that this remedy increases the sighing or gasping breathing, which warns us of the rapid failure of the spinal functions, which are so intimately connected with the processes of life.

The remedial agents which act as stimulants to the heart and vessels, and to the cerebral functions, and at the same time operate as sedatives to the medullary system, if energetically persevered in at the onset of the disease, offer some hope of equalizing the capillary circulation. These are alcohol, ether, opium, sumbul, chloroform, and many others, are acknowledged as useful and efficient in spasmodic and convulsive affections, when there is no inflammation.

They seem to give vigor and equal diffusion to the circulation, and thus prevent local determination and congestion of blood in the nervous centers. In this terrible disease it is advisable to assist these agents by the external application of heat and counter-irritation.

Dr. JEWELL says, after a thorough investigation of the treatment of this disease, "stimulants have been found useful in all periods of the disease, especially in proportion as they are early employed, both externally and internally."

Opium seems to stand at the head of remedial agents, and

is emphatically and almost unanimously endorsed by those who have witnessed its effects in this disease.

If we succeed with our opium, brandy, and external applications in equalizing the circulation, and for the time, relieve the local congestion, if the primary or *epidemic cause* is not removed or neutralized, we may expect a return of the symptoms in all of their former vigor. This being true, it is certainly important that we promptly and early use those remedies which experience has pointed out as best calculated to fill the second indication for the treatment of the disease.

We have no knowledge of this non-cognizable or *zymotic* agent save in its effects, consequently the remedies best calculated to remove or neutralize it must be submitted to the test of experiment. It is supposed to be a leaven or ferment, an active septic matter, a very small quantity of which, when introduced into living organism, will promote change and decomposition. "A little leaven leaveneth the whole lump." Its action is probably chemical, and breaks up the affinities of compound organic principles. If this is true we have a reasonable explanation of the rapid decomposition and change this agent works in the blood. The remedies found most efficient in counteracting its effects when in the system, are the arsenites and permanganates; chlorine and charcoal are also highly recommended as capable of destroying this class (zomatic) poisons. Their beneficial effects are produced without as well as within the body. Chlorine may be used with great benefit on the floors and walls of infected houses; but its acrid qualities renders it objectionable as an internal remedy.

Would it not be well for future investigators to try and determine the true nature of this concealed epidemic cause, by frequent analyzation of the blood of those who contract the disease.

It is believed by many that epidemic and infectious diseases are caused by the invasion and operation of living parasites, which enter the body and disturb its functions and structures. If it is an animacule, may they, when introduced into the system, under certain circumstances, be capable of self-propaga-

tion. This idea receives support from the phenomena of itch. This disease infects through the itch-mite, and is known to spread by this animal's propagation.

It is a generally admitted fact that cerebro-spinal meningitis prevails in damp or foggy weather. Thus the subtle poison or animalcule seems to require moisture to aid it in its invisible march through space on its mission of death. This is all purely hypothetical, and with our present knowledge is not supported by any trustworthy facts.

It is our purpose in this paper to refer to all of the *most important* remedial agents which have been employed in the treatment of this fearful malady, and to give the weight of experience for and against their use. The *cause* being non-cognizable, we must appeal to the experience of careful and honest observers, in order to enable us to judiciously select our remedies.

Those who have had the most extended experience do not favor the free use of *mercurials*. There are but few who recommend *emetics*.

The use of *purgatives* are often indicated, but they should be of a mild, laxative character, and simply unload the bowels without producing a depressing effect.

The primary effect of *cold* applied to the head and spine has, in the hands of a large majority of observers, been attended with beneficial results. It should not be used until after reaction, and only when there is heat of the surface, and in decidedly febrile cases. In the first stage, or when there is chilliness this remedy is inadmissible.

We have not found *quinine* beneficial, unless there is a decided periodicity in the disease. Prof. JEWELL has examined many authorities, and gives it as his opinion that a large majority are against its use. Drs. NOBLE, WALES, and PALMER, are of the opinion that *strychnine*, when early employed, is a valuable remedial agent.

In the preparation of this paper we have not aimed at giving more than a general outline of the nature and treatment of this fearful malady. It would extend it far beyond the patience of the members of this society, if we were to enter into the details of treatment. Therefore, these remarks are respectfully submitted to your consideration.

ARTICLE XXXIX.

EXPERIMENTAL INQUIRIES CONCERNING THE PHYSIOLOGICAL EFFECTS OF ALCOHOLIC DRINKS ON MAN.

By N. S. DAVIS, M.D., Professor Practical and Clinical Medicine, Chicago Medical College.

Read to the Illinois State Medical Society, June, 1867.

To investigate patiently and thoroughly the modus operandi and effects of such agents, as by their general use both by the profession and the community, are exerting important influences on human health, life, and happiness, is one of the most imperative duties incumbent on the physician. That alcoholic drinks, both fermented and distilled, are so used, and that they are daily exerting an immense influence over human life and happiness is universally acknowledged. Hence we ask your candid and patient attention to the following results of investigations concerning their effects on the human system.

That alcohol, when drank in the form of beer, wine, whisky, or brandy, is rapidly absorbed and carried with the blood into all the structures of the body, has long been known.

1. That while thus present in the blood, even in very moderate quantities, it so far retards those atomic and cell changes which constitute nutrition and disintegration, as to diminish the sum total of eliminations from the body, has been fully demonstrated by the experiments of Drs. Prout and Chambers, of England, Boecker, of Germany, Hammond and others in our country.

2. That its presence diminishes and disturbs innervation or nerve force, is pretty clearly established by Chambers, and still more fully by the daily observations of all classes in the community.

3. That the alcohol, when taken into the human system, neither becomes digested nor appropriated as food, nor chemically changed in any way while in the system, but is excreted or eliminated as alcohol, through the lungs, skin, and kidneys, was clearly shown by the experiments of Rudolph Messing,

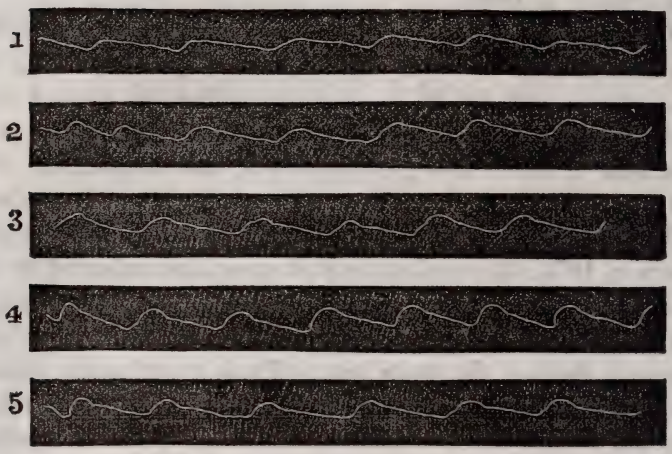
in 1854, and fully confirmed by those of LALLEMAND, PERRIN, and DUROY, in 1860.

While the foregoing investigations are sufficient to establish the fact, that alcohol acts simply as a foreign body in the human system, and by its presence retarding the play of vital affinities to such an extent as to materially impair the great functions of tissue change, elimination, and innervation; they left its effects on the circulation and colorification undetermined.

To supply this deficiciency I instituted a series of experiments in 1850, the results of which were communicated to the American Medical Association, at its meeting in Charleston, in May, 1851, and published in the North-western *Medical and Surgical Journal* for that year. These experiments showed that the presence of only a few ounces of either fermented or distilled drinks, in the human system was sufficient to produce a positive diminution of temperature. Two years preceding, namely, in 1848, M. M. DUMEREIL and DUMARQUAY, in making some experiments on intoxicated *dogs*, found their temperature uniformly reduced. For the purpose of verifying still further these results, and adding some coincident observations on the circulation, as indicated by the sphygmograph, I instituted, early in April last, two additional experiments, as follows: On the 6th of April, 1867, four hours after dinner, when the functions were supposed to be undisturbed by digestion, and the man in good health, the temperature of his body was carefully noted by a delicately graduated thermometer inserted under the tongue, with the lips closed around it; the rate of the pulse and its qualities, as indicated by the sphygmograph, were recorded at the same time. Four ounces of bourbon whisky were then administered, diluted with sweetened water. The same observations in regard to temperature and conditions of pulse were made and recorded every half hour, until two full hours had passed. A series of observations, in all respects similar, were made on the 11th of April, except the whisky, for which four ounces of sherry wine were substituted.

The results of these two experiments are best shown by the following diagrams, with the notes accompanying them:

Experiment No. 1—April 6, 1867.



10.20 P.M., four hours after dinner, temperature of mouth 98¼°, pulse 83, sphygmometer line, No. 1.

10.30 P.M., took 4 ounces of Bourbon whisky, with sweetened water.

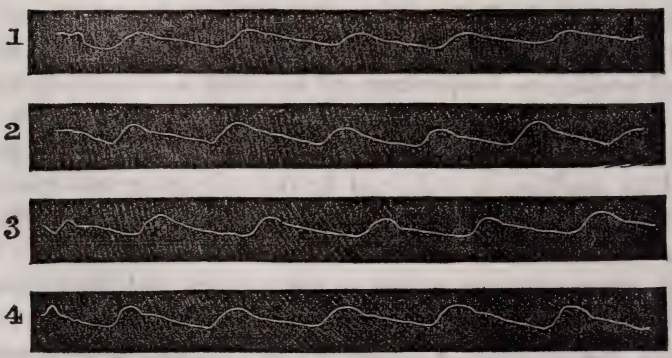
11 P.M., temperature mouth 97¾°, pulse 85, sphygmometer line, No. 2.

11.30 P.M., temperature mouth 97½°, pulse 89, sphygmometer line, No. 3.

12 P.M., temperature mouth 97½, pulse 88, sphygmometer line, No. 4.

12.30 A.M., temperature mouth 97½°, pulse 85, sphygmometer line, No. 5.

Experiment No. 2—April 11, 1867.



10.15 P.M., three and a half hours after dinner, temperature of mouth 97°, pulse 78, sphygmometer line, No. 1.

10.30 P.M., took 4 ounces of sherry wine unmixed.

11 P.M., temperature mouth 96¾°, pulse 75, sphygmometer line, No. 2.

11.30 P.M., temperature mouth 96½°, pulse 71, sphygmometer line No. 3.

12.30 P.M., temperature mouth 96½°, pulse 72, sphygmometer line, No. 4.

It will be seen that under the influence of the whisky the temperature diminished $\frac{3}{4}$ of a degree in one hour; while under the influence of the same quantity of wine it diminished $\frac{1}{2}$ a degree in the same length of time. Under the influence of whisky the rate of pulsations fluctuated, increasing during the first hour from 83 to 89, and decreasing during the second hour from 89 to 85 per minute. Under the influence of the wine the rate steadily decreased from 78 to 71 or 72. The qualities of the pulse, as indicated by the sphygmograph, are the same in kind, differing only in degree in the two experiments. An inspection of the cuts and accompanying notes will give a much more perfect idea of these representations than any description that can be given in words. It will be seen that each pulse expands the artery to a greater extent and more suddenly than before the alcoholic liquid was taken, and that the commencement of the contraction equally more sudden, while the whole line becomes more wavy or irregular; thereby much resembling the *pulse lines* when the arterial coats are weakened by fatty degeneration; or in such diseases as are accompanied by enfeebled capillary circulation, like typhus and typhoid fevers. Although the inferences to be drawn from the sphygmographic pulse lines as connected with different physiological and pathological conditions of the human system are yet imperfectly understood, yet so far as observations have been made, the lines in the accompanying diagram indicate retarded movement of blood in the capillaries, and consequent increased suddenness of expansion and contraction of the arterial trunks by the impulse of the heart. If this inference be correct, then we may sum up the results of all the varied and ingenious experiments in reference to the effects of alcohol on the human system, many of which have been performed both in this country and Europe, in the two following propositions:

First. Its presence in the blood directly interferes with the normal play of vital affinities and cell action in such a manner as to diminish the rapidity of nutrition and disintegration, and consequently to diminish the dependent functions of elimination, calorification, and innervation; thereby making alcohol a

positive organic sedative, instead of a diffusable stimulant, as is popularly supposed both in and out of the profession.

Second. That the alcohol itself acts in the system exclusively as a foreign substance incapable of assimilation or decomposition by the vital functions, and is ultimately excreted or eliminated without chemical change.

The important bearing of these conclusions on the therapeutic and hygienic uses of alcoholic drinks, must be obvious to all, and especially demand the careful attention of every member of our profession.

ARTICLE XL.

HOMŒOPATHIC LIFE INSURANCE.

By S. R. MILLARD, M.D., of Aurora, Ill.

Among the many humbugs that have arisen, in cloudy and mysterious shapes, in the domain of medicine, none has been more vapory, and none is destined to be more evanescent than that known as homœopathy.

It arose in Germany, passed westward, and loomed up in great proportions on the American continent, becoming more and more attenuated as it spread and swelled, till it now no longer casts even a shadow where the light of true medical science falls.

It has always been apparent to us, that those leaving the regular school to practice upon the whims of Hahnemann, were shallow minded and impracticable men, more fitted to be inmates of a lunatic asylum, or a charity hospital, than for the important work of curing the sick, and saving human life. But the extreme of absurd pretension, the very sublimation of folly, was not reached till a few months ago, when a parcel of men in Cleveland organized a Life Insurance Company, for the purpose of *insuring the patrons of homœopathy at rates ten per cent. less than the patrons of scientific medicine.*

For a time, when we read of this lilliputian scheme, we considered it only a joke upon our "sugar pill" neighbors; but before long there came agents and circulars, and ratio and tables, with veritable officers and boards of reference, looking, for all the world, like a real and live life insurance company. Witnessing such a bold and determined movement, we began to question if it could be possible that the lay members of that fantastic school, possessed of more brains and practical sense than the physicians could well and truly run a life insurance company. Before we were done considering this question, and the probable effects of the enterprise upon our own profession and practice; before we could draw our bow and let slip an arrow at the head of the approaching monster, another parcel of men, at Albany, N. Y., set crazy by the brilliant prospects of the Ohio institution, seeing great glory and abundant gains in such an undertaking, got up another company, offering to insure homœopaths for ten per cent. less premium than the patrons of rational medicine. This new concern seemed not quite so ready to cut loose from the old anchorage, but wisely kept half its pigeon holes for old school risks, or, in other words, prepared itself for carrying water conveniently on both shoulders.

Feeling some curiosity as to the interior of life insurance, and the modus operandi of the business, we got manuals, and posted up on the subject, far enough to form some opinion as to the tendency of these new movements. For the first time we learned the nature of mortality tables, of premium reserves, and various kinds of policies. As the result of our investigation we found no cause for alarm. The first company organized, had it received the united and full support of the "sugar pill" people in this country, would possibly have grown to be a power for evil; its influence for a time, at least, would have hurt us. But this second company coming into the field, with its guns more set against the first one than against the old fashioned companies will save us all labor and all care on the subject.

If the Albany company makes up its dividends honestly, in its two sections, we confidently predict that the patrons of reg-

ular medicine will receive greater profits, by at least fifteen per cent., than the patrons of homœopathy. Instead, therefore, of being hurt by this new opposition, we expect to be greatly benefited by it. Haman may swing again upon his own gallows.

This whole business but demonstrates anew the utter incompetency of these attenuated minds, to organize or manage any institution of importance. In the absence of a proper education, ignorance and conceit will always lead them into most ridiculous blunders. If they start off apparently well, they soon get at variance, fight each other, and thus destroy what little they might otherwise accomplish.

We now wonder what next? Nothing from the shades of of shadowy moonshine, the mystic realms of homœopathy, can hereafter frighten or even astonish us.

ARTICLE XLI.

POISONING BY STRYCHNINE.—RECOVERY.

By STACY HEMENWAY, Eugene City, Oregon.

Having noticed the recovery of two cases of poisoning from strychnine, recently reported through your valuable journal, one by S. A. McWilliams, A.M., M.D., and the other by Julien S. Sherman, M.D., both of Chicago, Ill., I deem it of equal importance to relate another case of recovery from poisoning by strychnine, which occurred seven miles south of this place, on the 5th of June, 1867.

James G., a resident of Lane County, Oregon, *æt.* 28, swallowed a quahtity of strychnine, accidentally, at about half-past 8 o'clock in the morning. It occurred about as follows: The patient had been in the habit of putting strychnine out to kill the "varmints," as he termed them, and had carelessly left upon the table a moistened teaspoon which he had been using in the finely powdered substance, a considerable quantity adhering to the spoon.

On the morning in question he had taken up a pail to go out and milk, but discovered before he started, (he perhaps being somewhat under the influence of an alcoholic stimulus at the time,) a cup on the table containing milk, which he desired to drink. He picked up this spoon with which to stir the cream into the milk, and thus thoughtlessly swallowed the mixture. He stated that immediately after taking the poison everything seemed to turn green, and that he suddenly fell to the floor, with inability to move his limbs, while his whole muscular system was in a state of tremor. He remained unable to move until about 2 o'clock P.M., and was unfortunately entirely alone. The nearest house was perhaps a fourth of a mile off, which he succeeded in reaching in the course of two hours by crawling and walking at intervals between the spasms, which were of frequent occurrence. Vomiting occurred once on the way. A messenger was now sent in haste for me. I reached the patient at about 8 o'clock P.M., nearly twelve hours after the swallowing of the poison, and found him suffering from the characteristic symptoms of poisoning by strychnine, having spasms, extensive, frequent, and severe, and excessive spitting of frothy saliva. About five minutes after my arrival a severe convulsive paroxysm occurred, which lasted twenty minutes. These violent spasms occurred at intervals of about half an hour, and about four thrills per minute passing through the system. He was suffering, also, from spasmodic contraction of the muscles of the chest about four times in a minute, with a feeling of impending suffocation. There was marked rigidity of the cervical muscles, the jaws set, and he complained of a sense of constriction of the fauces, with difficulty of swallowing. The extremities were cool; countenance anxious; pulse 110 to the minute, and the mind clear and sensible. Having with me the cannabis indica, in the form of the alcoholic extract, (the tincture being unobtainable at the time.) I immediately administered from 4 to 5 grains in pilular form, and repeated the dose in five minutes; then four similar doses at intervals of ten minutes; afterwards three such doses at intervals of fifteen minutes, with a rapid improvement of the symptoms. Symp-

toms of the intoxicating effects of this drug began now to be slightly manifested. The administration of the remedy was suspended for an hour, and then resumed again, in gradually diminished quantities, alternated with spts. camphor in drachm doses, every fifteen minutes, until four doses of each had been administered, when the patient began to be comparatively quiet, with a strong tendency to sleep. He began to sleep well at 2 o'clock A.M.; left directions with an attendant to administer a similar dose of each, one hour apart. During the administration of these remedies, the spasms gradually grew less violent, together with a gradual diminution, in severity, of the tremulous movements running through the system. The patient slept well, until late in the morning, when he awoke, complaining of extreme exhaustion, with general muscular soreness. A very slight thrilling sensation running through the system still prevailed. The patient was directed to take one 3 grain pill of the ext. cannabis indica every two hours for 6 hours, alternated with drachm doses of the spts. camphor. Nutritious diet with tonics soon rendered recovery complete.

Proceedings of Societies.

ADAMS COUNTY MEDICAL SOCIETY.

The regular annual meeting of the Adams County Medical Society assembled at the office of Dr. Robbins, Quincy, May 13, 1867, at 10½ o'clock A.M., the President, Dr. J. N. Ralston, in the Chair.

Present—Drs. Ralston, Helms, Watson, Wilson, Kendall, Bassett, R. Williams, Baker, Drude, Cadwell, Martin, and Robbins.

The minutes of the last regular, and subsequent called meetings, were read and approved.

The treasurer, Dr. Watson, presented his annual report, which was read and ordered on file.

Dr. Kendall moved that the charges against Dr. M. F. Bassett be taken up for consideration. Pending which the President explained why he had no annual address prepared; and, on motion of Dr. Drude, the Society adjourned to 2 o'clock P.M.

AFTERNOON SESSION.

The Society was called to order at 2 o'clock P.M., the President, Dr. Ralston, in the Chair.

Present—Drs. Ralston, Bane, Watson, Moss, Bassett, Martin, Helms, McNeall, W. J. Brown, C. C. Brown, Wilson, Williams, Drude, Morris, Baker, Kendall, Lunn, Cadwell, and Robbins.

The motion to take up the case of Dr. Bassett, pending when the Society adjourned, was carried.

Dr. Bassett being called upon, responded that he was ready to proceed with the case, and proceeded to state that the reasons given in the circular letter which he had issued to the profession, were those that impelled him to the course he had pursued. He had used the remedy there referred to in many cases of carcinomatous disease, and in none without benefit. Serious illness had interfered with his investigations, and it was too early to estimate the true value of the remedy. He had submitted it to a competent chemist, who had succeeded in ascertaining some of its constituents. These results he would give to the profession, and could he succeed in learning all the constituents, he would give it all to them. He had had no concealment, and desired none. He plead "not guilty."

The circular issued by Dr. Bassett was then read.

Dr. Watson moved an acquittal of the charge contained in the first specification, which was carried by the following vote:

Ayes—Ealston, Watson, Wilson, Drude, Robbins, Baker, Williams, McNeall, Martin, Moss, Morris.

Nayes—Kendall, Helms, Cadwell, Bane.

Dr. Robbins moved an acquittal on the second specification.

After considerable discussion and further remarks by Dr. Bassett, Dr. Bane offered as a substitute for the motion of Dr. Robbins, the following:

Whereas, On the 10th of December, 1866, charges were preferred aginst Dr. M. F. Bassett, of having violated ethical principles contained in chapter ii., sections 3 and 4, of the Code of Medical Ethics of the American Medical Association; and,

Whereas, He has this day satisfactorily explained the course on which such charges were predicated, stating that he fully believed himself to be acting within the scope of the code of ethics; therefore

Resolved, That said charges and specifications be indefinitely postponed.

On motion of Dr. Robbins, the resolution was amended, by striking out the words "*indefinitely postponed*," and inserting in lieu thereof the word "*dismissed*."

On motion of Dr. Bane, the second clause of the preamble was amended by inserting after the word "ethics," the following, viz.: "admitting a technical violation of the letter of section 4 of said code, but not of its spirit."

The preamble and resolutions, as amended, was then adopted by the following vote:

Ayes—Watson, Wilson, Drude, Robbins, Moss, Williams, Martin, Morris.

Nays—Ralston, Kendall, Helms, Cadwell, Bane, Brown, McNeall.

Dr. Robbins moved a reconsideration, which motion to reconsider was, on his own motion, laid on the table.

Charles C. Brown, M.D., was proposed for membership by his father, Dr. Wm. J. Brown, and the proposition referred to the Censors, who reported him a regularly qualified physician, in good standing, he having graduated at Rush Medical College, Chicago, his diploma bearing date January 25, 1867.

On motion, he was regularly admitted to membership.

On the application of Dr. C. R. S. Curtis for membership, the Censors report him a regularly qualified physician, a graduate of the New York Medical College, his diploma bearing date February, 1854.

The report was referred back to the Censors, with instructions to confer with Dr. Curtis, relative to some publications in

the daily papers, supposed to have been made with his knowledge, and consult and report at the next regular meeting.

On motion, the regular order of business was suspended, and the Society proceeded to the election of officers for the ensuing year.

The following named gentlemen were elected:

President—Dr. Louis Watson.

Vice-Presidents—Dr. J. W. Bartlett, Dr. M. M. Bane.

Recording and Corresponding Secretary—Dr. J. Robbins.

Treasurer—Dr. H. W. Kendall.

Censors—Dr. J. T. Wilson, Dr. M. F. Bassett, Dr. Richard Williams.

Ordered, That the dues of members who have retired from active practice be remitted, and that they be exempt from paying dues until otherwise ordered.

Dr. Wilson, one of the essayists for this meeting, reported a paper prepared, but, owing to the lateness of the hour, its hearing was postponed until the next regular meeting.

Drs. Landon and Roeschlant both being absent, and it being understood that both had papers prepared, their appointment as essayists was continued.

Drs. Joseph Robbins, Louis Watson, H. W. Kendall, J. T. Wilson, and Richard Williams, were elected delegates to the Illinois State Medical Society, and it was ordered that each delegate be authorized to appoint his own substitute, in case of inability to attend.

Dr. Robbins offered the following resolution, which was adopted:

Resolved, That a cordial invitation be, and is, hereby extended to the Illinois State Medical Society, to hold its next annual meeting in the city of Quincy; and we assure its members of a hearty welcome from their professional brethren in the City of Quincy, and the County of Adams. Adjourned.

JOSEPH ROBBINS, M.D., Secretary.

Mr. Editor:—

At the Regular Quarterly Meeting of the Adams County

Medical Society, held in this city on Monday, the 12th ult., it was ordered that such portion of the proceedings of said meeting as referred to the case of Dr. Bassett, be published in the Chicago medical journals.

Under this order I transmit the following:

Dr. Bane moved to take from the table the motion to reconsider the vote by which the resolution referring to the charges against Dr. Bassett, was passed at the Annual Meeting in May.

Dr. Robbins raised a question of order.

After considerable discussion the President decided the motion of Dr. Bane out of order, but invited an appeal.

An appeal was taken by Dr. Bane; the yeas and nays were demanded, and the decision of the Chair reversed by the following vote:

Ayes—Wilson, Bassett, Robbins, Williams, Bonney, Martin, 6.

Nays—Ralston, Stahl, Bartlett, Kendall, Helms, Baker, Shepherd, Cadwell, Hess, Bane, Landon, Young, Leach, 13.

The yeas and nays were then taken on the motion to reconsider, and it was carried:

Ayes—Ralston, Stahl, Bartlett, Kendall, Helms, Baker, Shepherd, Cadwell, Hess, Bane, Landon, Young, Leach, 13.

Nays—Watson, Wilson, Robbins, Williams, Bonney, Martin, 6.

On motion of Dr. Young, the charges against Dr. Bassett were referred to a committee of five, with instructions to report at the Annual Meeting in May next, said committee to be appointed by the Society.

The Society appointed Drs. Wilson, Bartlett, Ralston, Robbins, and Bane, to that committee.

Dr. Ralston moved the suspension of Dr. Bassett from the rights and privileges of membership until the next Annual Meeting.

A two-thirds vote being required, the motion was, on taking the yeas and nays, lost by the following vote:

Ayes—Ralston, Stahl, Kendall, Helms, Baker, Shepherd, Cadwell, Hess, Bane, Landon, Leach, 11.

Nays—Watson, Bartlett, Wilson, Robbins, Young, Williams, 6.

A true copy from the records.

JOSEPH ROBBINS, Secretary.

QUINCY MEDICAL SOCIETY.

The first quarterly meeting of the Quincy Medical Society was held at the office of Dr. Zimmermann, of Quincy, August 13th, 1867, at 10 o'clock A.M.

A quorum being present, the meeting was organized by the election of Dr. L. H. Baker, Chairman, in the absence of the President, Dr. C. A. W. Zimmermann.

The Secretary read the proceedings of the last two meetings, which were approved.

Dr. John S. Lower then moved that the Constitution and By-Laws proposed at the meeting held the 18th day of June last be adopted by this Society. This motion being seconded, was put and carried by a unanimous vote.

The amended Constitution makes it necessary for every member, in order to receive the right of suffrage, to present his credentials to the Society to be approved by a unanimous vote.

The Secretary then proceeded to present the credentials of nine of the twenty-nine members who compose the Quincy Medical Society, thirteen of whom reside in Adams County. After due examination of their credentials they were severally approved and the right of suffrage in this Society conferred upon the holders of each by a unanimous vote. The following were the credentials presented, viz.:

1. A Degree of Doctor of Medicine conferred upon John S. Lower, of Quincy, by the Cincinnati College of Medicine and Surgery, February 19th, 1845.

2. A Degree of Doctor of Medicine conferred upon Leander H. Baker, of Quincy, by the Louisville Medical Institute, March 3d, 1842.

3. A Degree of Doctor of Medicine conferred upon Addison Niles, of Quincy, by the Geneva Medical College, August 15th, 1835.

4. The credentials of C. A. W. Zimmerman, of Quincy, showing that he received a Degree of Doctor of Medicine conferred by the University of Gottingen, March 10th, 1835.

5. A Degree of Doctor of Medicine conferred by the Uni-

versity of Wursburg, June 4th, 1863, upon William Zimmerman, of Quincy.

6. A Degree of Doctor of Medicine conferred upon Joseph H. Reynolds, of Payson, by the Bellevue Hospital Medical College, March 1st, 1864.

7. A Degree of Doctor of Medicine conferred upon William Sigsbee, of Ellington, by the Castleton Medical College, June 16th, 1852.

8. A license to practice physic and surgery conferred upon Weller D. Rood, of Fowler, by the Onondaga County Medical Society, June 14th, 1840.

9. A license to practice physic and surgery conferred upon Andrew J. Miller, of Stone Prairie, by the Quincy Medical Society, Nov. 14th, 1865.

The Secretary then read a fee bill which had been proposed by the advice and concurrence of several members of the Quincy Medical Society.

On motion of Dr. William Zimmermann, it was unanimously adopted, and a Committee appointed to revise the same and report at the next regular meeting.

The Chairman appointed the following Committee for that purpose: Dr. A. Niles, Dr. William Zimmermann, and Dr. E. D. Helms.

The Secretary called the attention of the Society to the resolutions which were adopted by the East River Association of New York, June 20th, 1867, and published in the *Medical Recorder*, Aug. 1st, 1867, as follows:

Whereas, The attention of this Society has been called to consider the propriety of taking action relative to the practice of druggists renewing prescriptions of physicians without their written order, thereby injuring very materially the pecuniary interests of the profession, without gaining any particular benefit to themselves; and

Whereas, In view of the graver and more important considerations, that the interest and lives of patients are in consequence endangered, we consider it a duty to guard to the utmost of our ability against the liability to mistakes, which should be prevented rather than deplored; be it, therefore,

Resolved, That we cordially invite the earnest coöperation of

every druggist in this city, especially in our immediate districts, to further this laudable purpose; and be it further

Resolved, That we respectfully request that no druggist will renew the prescriptions of any physician connected with this Society, without due authority for each and every such renewal; further, we will regard as unworthy of patronage any druggist who fails to comply with the requirements of these resolutions.

Resolved, That a copy of these resolutions, with a blank card, be sent to each and every druggist in our districts, with a request that the card be returned within two weeks to the Secretary, signifying their intentions with reference to compliance with these resolutions.

On motion, the above resolutions were adopted by the Quincy Medical Society, and the Secretary requested to present a copy to every druggist in the city, for his approval or dissent.

The Secretary reported that he communicated to the Secretary of the Adams County Medical Society the resolution adopted by the Quincy Medical Society, at its last meeting, as follows:

Whereas, A resolution was adopted by the Adams County Medical Society, held May 14th, 1767, inviting the Illinois State Medical Society to hold its next annual meeting in this city, which invitation has been accepted by the State Society; therefore

Resolved, That we cordially approve the measure, and hold ourselves in readiness to coöperate with the Adams County Society in making the necessary arrangements. For this end the Quincy Medical Society authorizes the President to appoint a Committee to confer with the Adams County Medical Society on the subject, and likewise to consider any propositions which may be brought forward to harmonize and unite the medical faculty in this city and county.

In accordance with the above resolution, the President appointed the following Committee, viz.:

Dr. E. D. Helms, John S. Lower, and L. H. Baker, of this city.

On motion of Dr. E. D. Helms, Dr. C. A. W. Zimmermann was added to the Committee.

Up to this date no official answer has been received from this communication.

On motion, the Society adjourned.

ADDISON NILES, Secretary.

Correspondence.

RATIO OF DEATHS FROM CHLOROFORM IN ENGLAND.

London, July 13, 1867.

The London surgeons, with the exception of Dr. Protheroe Smith, and part of the officers of Guy's Hospital, have, with one consent, settled themselves down in the comfortable delusion that the risk of chloroform is scarcely worth considering. I find them just like Americans in one thing—they hate statistics. When I ask them what the actual risk of chloroformization is, they reply, "Oh, a very trifle, a mere nothing." The celebrated Mr. Simon, of Guy's Hospital, told me that it was in his opinion safer to take chloroform than to take a ride on a railroad. Others, when pressed for an opinion, generally fall back on Mr. Sansom's Handbook on Chloroform, which estimates the deaths from Chloroform to be only one out of every 17,000 persons taking it. This may be set down as the opinion of the mass of London surgeons, both eminent and otherwise. Now, while they are gliding along in this agreeable state of mind, I have been at work to gather facts, and I find that instead of one death in 17,000, one patient dies out of every 3,461 anesthetized, in the very hospitals where these gentlemen are at work. In other words, the deaths from chloroform under their own hands are about five times as numerous as they state, and as Mr. Sansom's Handbook estimates. If there were a railroad in London which killed one out of every 3,461 of its passengers, I imagine one would hesitate to buy a ticket on it. In examining Mr. Sansom's statistics, to see how he arrives at his surprising estimate, I find the reason of his error. He omits entirely the London hospitals, and takes no note of the fact that several deaths from chloroform occurred in the very one of which he was an officer. He obtains from some source an estimate of the number of times the article had been given in the hospitals of Birmingham, and other inland cities,

amounting in all to 17,000 times. In these hospitals only one death from its use had "been reported," *ergo* chloroform causes only one death in 17,000 cases. Now, the very first step which I made in this investigation showed me that many deaths from anesthetics occur both in this country and America, which are never publicly reported. There are no regular statistics of anesthesia kept in any hospital here, that I have yet found, and as a chloroform death is an ugly, uncomfortable fact, it usually slumbers unnoticed by the records. The difficulties of my investigation, therefore, have been very great. My mode of obtaining the facts had been this. I have made careful personal inquiries of the surgeons, house surgeons, dressers, and secretaries of every hospital which I have visted, as to the two points, viz.: the number of times per annum chloroform has been given, as far back as their means of information extend, and, secondly, the number of deaths it has occasioned in the same period. These officers usually have no difficulty in estimating approximately the number of administrations per annum which have occurred for several years, and the deaths during the same periods. In this way I have collected figures from fourteen hospitals in Liverpool and London. I obtained reliable accounts of chloroform being administered eighty-three thousand fifty-nine times, (83,059,) and of these, twenty-four (24) proved fatal, or one in three thousand four hundred and sixty-one, (3,461.) Now, if this is "safer than riding on a railroad," then I shall buy no more railroad tickets. A railroad in active business which should have a mortality like this would kill from 500 to 3,000 passengers every year. I shall continue my investigations on this subject both here and in France, and will report any new facts which I may ascertain. Some of the hospitals here are a little uneasy, after all, and are using a new inhaler for safety, called Clover's apparatus, the principle of which is to inhale from a large air sack, which is inflated by a bellows, of a known capacity. The air, in passing from the bellows, goes through a hot evaporator, containing just enough chloroform by measure to give 3 or $3\frac{1}{2}$ per cent. of chloroform vapor to the air in the sack. The huge, black bag,

about 3 feet long and 2½ feet wide, is slung on the back of an assistant, looking like the burden in the pictures on the back of Bunyan's Pilgrim. A large tube passes under his arm, terminated by an inhaler so arranged with valves that the patient inspires from the bag and expires into the open air. It is too clumsy for private practice, but works well in hospital, and probably promotes safety, as the patient cannot possibly get more than the per cent. of chloroform vapor which is placed in the sack. It has not been used enough yet to test, practically, the per cent. of mortality under it.

For the present, therefore, it would seem to be our duty to use ether in all cases in which the patient can be readily brought under its influence, and to reserve chloroform for those whom ether will not subdue. Possibly the tetrachloride of carbon, now being introduced by Dr. Protheroe Smith, may prove to have the safety of ether and the promptness of chloroform. If so, all good surgeons will rejoice. I should have stated that my chloroform statistics are gathered exclusively from surgical cases, and are of no value in determining the safety of the article in midwifery.

Notwithstanding the deficiency of Mr. Sansom's book, in estimating the real danger of chloroform, it will be found to contain very valuable information on other branches of the subject, together with the Report of the Committee of the Royal Medical and Chirurgical Society, in 1864, may be said to contain the best results of English investigation up to the present date.

EDMUND ANDREWS, M.D.

23 Cecil Street, Strand, London.

LOCAL ANÆSTHESIA.

BELLEFONTAINE, Iowa, Aug. 4th, 1867.

N. S. DAVIS, M.D.:

Dear Sir:—My attention was called to the new mode of producing local anæsthesia, (in the number of the MEDICAL EXAM-

INER, for August, 1866,) invented by Dr. RICHARDSON, of London, and was determined to give it a trial. Accordingly, I purchased an ayparatus, and commenced experiments. I first tried it for destroying sensation in the teeth, for the purpose of extracting without pain. The result was very unsatisfactory in every case, owing to the abundance of saliva in the vicinity of the molars. It was almost impossible to accomplish freezing, and when I succeeded in doing so it was followed by no diminution in the pain of extraction, besides the operation itself being very painful. I next tried it for the purpose of making incisions of a necrosed portion of the ostibia, in a young man, but without success; the narcotism never penetrating to the depth of over $\frac{1}{16}$ of an inch. I then tried it in a case of carbuncle; then a common boil, and lastly in a case of whitlow, after which I abandoned it in disgust. The fluid used was rhigoline. I have very frequently tried it on my own fingers, and found it very painful, besides being followed every time by inflammation to some extent. Such is my brief experience with the spray producer, from which I pronounce the whole thing a failure.

Respectfully yours, D. SCOTT, M.D.

Selections.

DIABETIC PHTHISIS AND ITS TREATMENT.

By B. W. RICHARDSON, M.D.

The physician who has occasion to treat large numbers of patients suffering from phthisis pulmonalis soon becomes aware of the fact that the disease is not a single and simple organic lesion depending only on one primary condition, but that, manifesting a remarkable unity in respect to symtoms, it may exhibit as remarkable a diversity in relation to cause, and may be allied with many and varying forms of disease. Thus there is a true form of phthisis connected with alcoholic degeneration of the tissues—alcoholic phthisis; there is a form of phthisis in children connected with cyanosis—cyanotic phthisis; there

is a bronchial phthisis; there is a form of phthisis from inhalation of foreign substances—mechanically excited phthisis; there is the ordinary phthisis of the young, hereditary or acquired; and, lastly, there is the peculiar form of phthisis which is sometimes coincident with diabetes, and to which I would now direct attention—diabetic phthisis.

Diabetic phthisis is, by comparison, a rare disease. In the course of twelve years' practice at the Royal Infirmary for Disease of the Chest I have met with not more than eight cases, and in private practice I have met with three only. On the whole, juding from experience, I should think that of fifteen hundred cases of a phthisical character, not more than one would be a case of diabetic phthisis. Further, the disease diabetes may prove fatal without any of the symptoms of phthisis. For all this, diabetic phthisis, when once set up, is a well marked form of disease: it is something more than a complication of diabetes when it appears, for it soon stands out first, and becomes the actual life-destroyer.

In three of my cases the patients presented themselves, unconscious that they were eliminating large quantities of sugar by the urine, and complaining solely of the affection of the chest. In all the other cases the symptoms of diabetes had been recognized prior to the development of pulmonary mischief; this, I have no doubt, is the general rule, and I believe in every case where the history of the symptoms can be clearly traced it will be found that the diabetes was the antecedent affection, although the patient was not conversant of the fact. When in the course of diabetes the phthisical condition is developed, the newly diseased state is not usually an early complication; but, once developed, it speedily runs its fatal course.

The first general symptom is severe hectic, the hot stage of which is very extreme, and, instead of being followed by profuse sweating, is succeeded by great coldness of the surface of the body, depression, and copious elimination of urine. Difficulty of breathing is a marked symptom; cough is common, but is usually hacking only, and is unattended with any quantity of expectoration. Hæmoptysis, in the strict sense of the word, I have not seen; but sputa of a rusty character, in small quantities, is frequent. There is little acute, thoracic pain, but great oppression. Waste of bodily substance is extreme.

The physical signs are well marked. If the disease is seen early, patches of lung, like so many centres, give signs of dry crepitation; rapidly this crepitation extends over the whole lung. In one of my cases, during the last six weeks of life I

could put the stethoscope over no part of the chest without hearing crepitation. The crepitation is distinctly that of early tubercle; it is wanting in the fineness of early pneumonic crepitation. In course of time there is some tendency to softening of tubercle, but this is very limited, and I have but once observed the actual formation of cavity. Death takes place, in fact, too early to give time to give time for softening or absorption of tubercle; added to this, the diabetic condition seems to interfere with the process of softening, probably by the removal of water from the tissues.

Percussion over the chest, where there is crepitation may be dull, but this sign is not essential.

Whenever there is clearly developed diabetic phthisis the prognosis is inevitably bad, according to our present knowledge of treatment. Further, the prognosis is almost definite as to time; I have not seen a case that survived four months after the tubercular condition had been obviously present. From six to ten weeks is the common duration of the term of life from the period of severe and definitely recurring hectic.

After death the condition of lung is peculiar, and in three cases—the only cases I could be allowed to inspect—the condition was the same. The lungs were much shrunken and dry; they were greyish and darkly mottled in color; the tissue was filled with small dark—I had almost said gritty—tubercle, and there were a few patches of deep vascular congestion. There was no pleuritic adhesion, no serious effusion, no pulmonary cavity.

In every case of diabetic phthisis I have seen there has been disease of the base of the brain. In one case there was a growth of bone pressing upon the under surface of the medulla oblongata; in another case there was softening of brain substance, and in a third case there was disease of the vessels with thickening of the membranes and old adhesions. In one of these cases the patient had been under the late Dr. Bayly for "acute meningitis," and his symptoms of diabetes followed that attack immediately. As he recovered from his acute illness he discovered himself diabetic.

The pathological relationship of diabetes and phthisis of the lung seems to me to be through the nervous system. That there is a functional and an organic type of diabetes; that the functional type is largely curable, and the organic absolutely incurable; and that the functional type is connected with a false digestion, owing to temporary interference with nerve action—these, I think, are facts which every scientific physician must be prepared to accept.

Some difference of opinion, however, yet exists as to the relationship of diabetes to disease of the brain. The progress of experimental inquiry has all been to the effect that lesion of brain structure is an efficient cause of the diabetic condition; but Dr. Ogle has recently, in a most labored and able paper, maintained that the brain lesion sometimes found in diabetes is a result of structural change incident to the diabetic state, and a result instead of a cause. I do not propose to discuss this refined question now, but I would point out that when phthisis of the lung is developed during diabetes, the morbid change appears to be the result of what may truly be called inervation of the lung tissue. That the change is not due merely to modification of the blood is certain from the fact that diabetes may exist or prove fatal without the occurrence of pulmonary phthisis or any sign of it. The occurrence of the phthisis also takes place, as I think experience shows, only when the diabetes depends on lesion at the base of the brain. It is fair to presume, therefore, that in such cases the nervous injury has so extended as to involve at their source the nerves from which the pulmonic structure is supplied.

Regarding treatment in diabetic phthisis, I have tried various plans—oxygen by inhalation, oxygen by per-oxide of hydrogen, special diet, change of air—and all to no purpose. Still there are certain points of practice which are worthy of note. I name two especially:

1. I am convinced that in this malady oxygen and its allies, chlorine, iodine, or their compounds, do harm: they increase elimination, and reduce accordingly.

2. I am equally certain that a diet restricted to albuminous products is utterly wrong, both in theory and in practice. I believe that in functional diabetes a great duty can be effected by restricted diet, coupled with the method first suggested by Rollo, of giving with such diet ammonia and iron freely. I doubt, however, the practice of restricted diet in every case of organic diabetes, and in cases where there is the faintest indication of phthisis the restricted diet becomes, I feel sure, a positive evil. So soon as diabetic phthisis is established, the general dietetic rules for phthisis alone are the rules, and the only rules, to follow. In the way of affirmative treatment the principles are—to sustain warmth of body, to check waste by opium and quinine, and to sustain by good food, especially by the free use of animal oil. In the next case I have to treat I will give animal oil, not by the spoonful, but by a half-pint at a time. I will give it as the Esquimaux takes it, and for the same reason,

to sustain the lost caloric in his case, too rapidly carried away by the surrounding cold, and in the case of the diabetic man by the excessive formation, dissolution, and elimination of sugar. To this last remark I would add that, in respect to the treatment of organic diabetes altogether, there is more hope in the free use of animal oil than in any other remedy. Here is an unexplored field of practice before us, a very simple practice, and easily put to the test, but a practice strictly rational and based on the true institutes of medicine.—*Medical Times and Gazette.*

CHRONIC METRITIS—PROF. SCANZONI'S TREATMENT.

Prof. Scanzoni, of Wurtzburg, has never obtained any good effects from anything but the iodide of potassium, and the iodo-chloride of mercury in direct application to the uterine and vaginal mucous membranes.

He uses, for instance, a liniment containing one drachm of iodide of potassium to one ounce of glycerine, and places every night in the vagina a sponge impregnated with this fluid. The sponge is removed in the morning. This, he says, is the only method of iodine dressing which has ever been found capable of reducing in the course of two or three weeks the size and induration of the inferior segment of the womb, and is infinitely preferable to the application of tincture of iodine and of iodized liniments to the inguinal regions.

Scanzoni has more recently had recourse in the same manner to the introduction into the vagina of the following pomade:

Hydrarg. iodo-chloridi, gr. v.
Adipis, ℥j.

After each application of the remedy which requires the assistance of the speculum, the patient should keep her bed for six or eight hours.

The sponge may then be extracted, and an injection of tepid water should be performed. The epithelium is in general destroyed in the parts which have come into contact with the ointment; exudation follows, and marked decrease of size of cervix. The application may be repeated several times, if necessary, at intervals of ten days or a fortnight.

Scanzoni has completely relinquished the practice of apply-

ing tincture of iodine to the vagina or cervix. When excoriations are present, he prefers to all other local remedies rectified pyroligneous acid, pure or mixed with equal parts of creasote. He leaves these modifiers in contact with the ulcerated surfaces, until the sanguineous oozing has ceased, and until the part which is in general of a bright red, has required a dead white color.—*Journal of Practical Medicine and Suryery.*

A CASE OF EXCISION OF THE CERVIX UTERI.

In recently looking over an old volume of Surgery, (*The Art of Surgery, etc.*, by Daniel Turner, M.D., London, 1736,) we came across the following interesting case. The operation performed on the patient herself, is evidently the same as that recently proposed by Huguier for so-called procidentia, and which is now attracting so much attention. The case is narrated under the heading "Of a Procidentia Uteri, ac Prolapsus Vaginæ ejus." We transcribe it entire, believing it will be of interest to the profession, not alone on account of its novelty and the quaintness of the narrative, but also from the fact that it is probably the first case on record of this operation for the cure of procidentia:

An elderly woman, having been for some years crazy, as well in her head, I mean her intellect, as her body, and longer incommoded with a procidentia uteri, which she was forced to keep up with her string-cloth, being otherwise scarce able to move about the house; under a fit of melancholy, was pondering how to free herself from this inconvenience, and unknown to any person of the family, taking her opportunity, first putting herself in a suitable posture, with one hand she draws down the prolapsed body, whilst with her husband's razor in the other, got as it were, by stealth, she excised all within her reach; then, putting a clout up to the parts, she got into her bed; where, after short time the blood being discovered, and she questioned about it, she very sedately told them what she had done.

Upon this a neighboring surgeon was sent for, who restrained the hæmorrhage with proper restringents: but in the evening, the flux being renewed, he called me to his assistance: when, ordering a large tent, like a pessus, to be made up, the same was dipped in oxycrat. cum alb. ovorum, then gently expressed

and rolled over some fine bole, particularly its extremity, and so put up; next to this, a thick pledget, or wad of tow, wrung out of the same, and sprinkled thick cum farina fabar, with the T-bandage to keep all close.

The day following, the blood seemingly staunched, a digestive was got ready, into which made warm, a tent like the first was dipped and introduced: but coming the third day, we found more blood discharged, several grumes, or clots, following the extraction of this last application; so that we were forced to have recourse to our restringents: and thus we continued for several days, our patient all this while calm, with little fever, and as little complaint, in regard to what might have been expected from so desperate an operation.

When the flux was stopped, and the external privity cleansed with a warm stuph wrung out of wine, we took a more strict survey of the parts, and dilating the labia with my fingers, in expectation of finding a wound on the relaxed vagina, could perceive nothing like it, all lying fair and natural within our sight: when, entering my finger as high up as I could reach, I plainly felt a large jagged or unequal wound, on the lower part of the uterus, whose os internum, or whole cervix, had been cut off: the blood, upon this examination (though but in small quantity) again following my finger.

I then inquired after the part thus strangely taken off, which they shewed me put by in water, and I perceived it, as I have represented, the upper part an inch and a half deep, especially on each side, somewhat narrower in the middle, and still less on the under part, or that lying on the rectum, which, for the curiosity, I desired the surgeon to put into spirit of wine, and which he still keeps by him, to gratify the ingenuous inquirer with a sight thereof; of which number the first person I showed it to was Mr. Petty, in Fenchurch street: but, proceeding,

After this discovery, the blood also entirely restrained, I advised a large tent to be made up, as at first, whose upper extremity was dipped in a melted mixture, ex part. iij., vel cerciter, linimenti arcæi, cum quarta ol. tereb., passing it up against the gaping wound of the uterus; I also advised a warm fomentation, which we were shy of sooner, on account of the hæmorrhage, prepared ex Decocto fol. absinth. cent. hyper, etc., and a proportionate quantity of the spir. vin. camph. to be applied with stuphs, not only to the pudendum, but reaching up to the lower belly, which were renewed for half an hour, night and morning, before the time of dressing up, whereby to comfort the internal parts thereof, cherish their heat, and promote di-

gestion of the wound; which, after ten days, began to appear laudable upon the end of the tent, and in moderate quantity.

After this a womb-syringe was provided, and the following decoction thrown in twice a day, by way of injection, to mundify the wound; by its situation I apprehended it less susceptible of an impression of our balsams, which were, however, still continued after the use thereof.

℞.—Plantag. cum toto, summit. hyperic. centaur, ana, m. j. hord. gallic. ℥ ss. coquantur in aq. font. q. s. pro ℔i. colaturæ, cui per subsidentiam depuratæ adde mel rosar. ℥ij. tinc. myrrh. ℥ ss. et f. mixtura, cujus, metrenchitæ auxilio, injiciantur cochlear. v. vel vi. per sinum Pudoris, prius tepefacta, bis in die.

This having been used for some days, and the discharge still lessening, I substituted the following, more consolidating and agglutinating:

℞.—Rad. de symphyto, plantag. ana ℥i. fol. hyperic. equiseti, saniculæ, bugulæ, ana m. ss. coquantur in aq. font. q. s. ad ℥xij. colaturæ, sub sinem infundendo vini rub. ℥iv. et preterea colature suprascriptœ addendo mel rosar. ℥ij. f. pro injectione prioris instar utenda, sed sæpius in die.

By which I have great hopes her cure may be accomplished; she now gets out of bed, takes her nourishment and rest, the discharge from the wound being inconsiderable; and the same bidding fair for healing suddenly.

I think this is, if not the only instance of the *niseratomia*, yet surely of the uteri cervicis abscissio, I remember to have met with in our writers of chirurgery; at least I am apt to believe the first attempt at this way, for the cure of its prolapsus. —*Journal of Practical Medicine and Surgery.*

DIABETES.

By H. BENCE JONES, A.M., M.D., F.R.S., late Phy'n to St. George's Hospital.

(*Lectures on Pathology and Therapeutics.*)

Dr. Jones, in speaking of the treatment of diabetes, in his elaborate work on Pathology and Therapeutics, says, that the effect of diet is far beyond that of any known remedy. An anti-farinaceous, or in other words, an anti-saccharine diet, will remove the sugar from the urine, and stop all the symptoms of the complaint in all those cases in which the power of consum-

ing the animal sugar remains unaffected. Even when the consumption of the animal sugar is imperfect or impossible, an anti-saccharine diet will lessen the thirst, the flow of water, the dryness of the mouth, and even the constipation, and check, though it may not stop, the waste. The simplest formula for the diet may be thus stated. All animal produce, including fish, flesh, fowl, game, eggs, cream, and meat-soup, should be taken; and all vegetable food that contains starch, dextrine, and sugar should be avoided. The vegetable substances that contain most starch, dextrin, and sugar are rice, maize, arrowroot, sago, potatoes, oatmeal, peas, beans, biscuit, toast, maccaroni, vermicelli, and all confectionery. Fruits are even worse than vegetables. Apricots, plums, peaches, cherries, pears, and gooseberries are nearly as bad, and some worse, than rice or maize. Stout, porter, and ale, cider, port, madeira, champagne, and sherry are more or less highly saccharine; cocoa and chocolate contain nearly 20 per cent. of starch and dextrine naturally, and more is often added.

As regards the use of medicines in diabetes, Dr. Jones is of opinion that there are two ends to be gained by their use; the first and most important is to promote the oxidation of the sugar; or, failing this, to compensate the system for the loss of saccharine fuel, and the consequent loss of power and nutrition by promoting the supply and oxidation of the oleaginous fuel. Of all the medicines that can be given for the promotion of the oxidation, whether of sugar or fat in the body, iron and alkalies are the most energetic; and hence, beyond all other remedies, iron or the ammonia-citrate of iron with excess of ammonia, or with other alkalies, are usually the best medicines for diabetes. The iron may be given in potass or Vichy, or in Fachingen water, and that preparation which confines the bowels least is most to be preferred. Hence, the potassio-tartrate and Griffith's mixture are often useful. Alkalies without iron promote oxidation. Soda or potass may be given in the caustic state, or as carbonates. Carbonate of ammonia in ten, fifteen, or twenty grain doses thrice daily, in any gaseous mineral water, lessens the thirst.

Besides alkalies some animal substances are thought to promote change in the sugar in diabetes. Of these rennet and pepsine may be mentioned; but Dr. Jones is not satisfied that either are very useful.

Vegetable and animal oils and fats constitute important remedies in diabetes. Of all these cod-liver oil and cream are most frequently used. The following case may be taken as an instance of the amount of cod-liver oil that can be given:—

A man, aged twenty-four years, was admitted into St. George's Hospital, having lost two stone in weight during eight months. He passed seven quarts of urine daily. He remained under treatment for a month, during which time he was on animal diet and cod-liver oil. He began with half an ounce daily, and this was gradually increased up to eight ounces. The quantity of urine fell to two pints and a half, specific gravity 1030, and he increased in weight from 8st. 8lb. to 9st. 1lb.

Cream may be given in any quantity until the tongue begins to be coated, then it soon disagrees, and the stomach refuses to take it, or rejects it when taken.

Pure glycerine may be employed as a substitute for sugar in tea, and in other liquids.

To lessen the thirst, and the craving for food, opium is very useful—five or ten grains of Dover's powder, or five or ten drops of laudanum, may be given once or twice daily.

The second great object in the treatment of diabetes is to remove the constipation.

Notwithstanding the amount of food eaten, the action of the bowels usually is very difficult. All saline aperients increase the thirst, and pass off by the urine. Magnesia, from the absence of acidity, is usually inactive. Castor oil is by far the best aperient, when it does not nauseate, then capsules containing castor oil, with minute quantities of croton oil, are most efficacious. Compound extract of colocynth with jalapine, scammony, or gamboge, or podophyllin, will act when oil cannot be taken. Calomel may be used as an aperient, but it has not any advantage over other chemical or mechanical irritants to the mucous membrane of the bowels.

TRAINING, OR FORCED EXERCISE IN THE TREATMENT OF DIABETES.

Professor Bouchardat, while admitting the efficacy of alimentary treatment in diabetes, considers it only as palliative, and he recommends the adoption of energetic exercise. This idea is not a novelty on his part, as in former writings he recommended, in the case of patients affected with this complaint, the energetic action of their bodies and arms; and then he ascertained that labor in the open air always promotes the utilization of the feculent matters in diabetic patients. It is not sufficient

in all cases to cause the disappearance of the sugar, but, all things being equal, in regard to the quantity of feculent matters absorbed and other conditons, a diminution in the proportion of sugar contained in the urine always coincided with exercise in the open air. M. Bouchardat gives an instance of remarkable success in the treatment of diabetes attained by this treatment, the diet being carefully regulated and the urine being examined at intervals. Although the patient may at first be very weak, the adoption of exercise will gradually give him strength. It is of the greatest importance, according to M. Bouchardat, to use the strength in proportion as it returns; and daily exercise of the body, arms, and legs is indispensable. The greatest care must be taken to find some daily exercise which is agreeable to the patient; as, for instance, in the case of men, hunting, rowing, fencing, skating, billiards, cricket, etc., or any ordinary manual employment, as sawing, cleaving wood, turning, and the active work of gardening; and in women, all the active household employments, especially those which require the action of the legs rather than standing without walking. Riding in a carriage is not to be adopted except when no other exercise is possible; but riding on horseback is a salutary kind of movement, although it cannot be substituted for all the others. Of all the modes of exercise, that which is most convenient must be chosen; and it ought to be energetic, so as to produce a thorough sweating over the whole body; and then all necessary precaution should be taken to prevent the chance of chilling the system. M. Bouchardat relates several cases in which his system was successfully adopted in the treatment of diabetes; he considers the exercise of the gymnasium especially useful when such an establishment is well conducted, and he gives some rules to be followed by the patients. When the exercise has been continued for about an hour, and all the body is bathed in sweat, the flannel should be changed, and the skin washed briskly with cloths soaked in cold water, then strongly rubbed with coarse gloves or towels, or flesh-brushes. Then the body is to be struck and kneaded, so as to produce a complete reaction, which is sustained by a walk of a quarter of an hour at least, the body being protected by good woolen clothes. The skin should not be neglected while these exercises are used, and salt-water baths, either warm, or, what is better, cold, if they can be borne, are, according to M. Bouchardat, of almost invariable utility. During the treatment the diet must be carefully regulated, glycogenic substances being avoided while the urine is diabetic, and resumed only when the sugar has disappeared.

The red wines of Bordeaux or Burgundy may be drunk; but sparkling wines, like champagne, should be avoided. Coffee and tea, without sugar, are sometimes suitable, but their employment must be regulated by the condition of the urine after they are taken.—*British and Foreign Medico-Chirurgical Review, Oct., 1866.*

DIABETES.

The plan Dr. Hare, of University College Hospital, adopts in cases of diabetes, is to allow the patients, when first admitted, the diet of the hospital in as great quantities as they desire. After pursuing this plan for a day or two, he changes to the usual restricted diet for diabetic patients, and can thus ascertain for himself the exact difference so produced. The effect is quiet amazing. The quantity of urine is diminished, as is the amount of sugar contained in it, and by persevering in this plan of dieting he is able to reduce the specific gravity of the urine to a very low standard. In one case recently under his care it came down to 1007, yet there was a trace of sugar present. Cases have been recorded where sugar was found in urine having a specific gravity of 1015 or 1016, but we believe that this is one of the, if not the very, lowest densities presented by urine containing sugar. Dr. Hare usually combines his dietetic treatment with the exhibition of the tinct. ferri perchloridi and opiates night and morning.—*Medical Times and Gazette, January 12, 1867.*

TREATMENT OF DIABETES.

By ABBOTS SMITH, M.D., M.R.C.P., &c.

Dr. Smith says, in his instructive little work *On Diabetes*, that the plan of treatment most likely to prove beneficial in this complaint is as follows:—To limit the patient's diet to such articles as do not contain sugar or starch; to attend carefully to the state of the secretions, especially those of the bowels and skin, promoting the action of the former by the administration of podophyllin (so as to act particularly upon the liver), or sa-

line purgatives, and increasing the action of the skin by diaphoretics, the hot-air bath, warm clothing (flannel worn next the skin), and moderate exercise. When the general condition of the patient has in this manner been improved, we must specially direct our attention to the morbid secretion of the urine, and endeavor to check it by suitable medicines. To give any particular remedy, simply because it has been known to be beneficial in diabetes, before the general points referred to have received attention, is opposed to common sense as it is likely to result in failure. The following general diet may be adopted by patients suffering from diabetes:—

Breakfast.—Bacon, mutton-chop, or eggs; one of the substitutes for ordinary bread; butter; tea, coffee, or cocoa, made with freshly ground nibs, and not with the ground cocoa-powder, as sold in the shops, unsweetned with sugar, and without milk.

Dinner.—Beef-tea, broths, or soups not flavored with carrots or other vegetables; mutton or beef, poultry or game, and fish; cabbages, greens; occasionally, but sparingly, rice pudding without milk, blanc-mange made with cream, not with milk; cheese, butter, and bran, gluten, or almond bread. (This meal should not be taken later than three or four P.M.) For desert, the patient may be allowed a glass or two of sherry or claret, and oily nuts, such as hazel-nuts or filberts, or walnuts. All other kinds of fruit must be interdicted.

Tea.—Similar to breakfast, with the exception of meat, which is not requisite.

Supper (at nine or ten P.M.).—Dietetic bread and butter, with a little meat, or a small basin of rice milk without sugar.

In the medical treatment of diabetes, the remedies which are of most frequent benefit are alteratives and tonics, so as to improve the appetite and general condition of the patient, and thus enable him the better to bear up against the great drain upon the system, caused by the elimination of the morbid saccharine materials. Quinine, gentian, and other bitters are very useful for improving the tone of the stomach; and the state of the patient may be still further amended by the administration of cod-liver oil, and of the preparations of iron. No remedy in the Materia Medica is of such value in the treatment of diabetes as cod-liver oil, it has a great tendency to improve the condition of the blood by increasing the proportion of the red corpuscles, which undergo considerable diminution in the blood of diabetic persons.

TREATMENT OF INCONTINENCE OF URINE.

By ABBOTS SMITH, M.D., M.R.C.P., &c.

Dr. Smith states in his interesting brochure *On Diabetes; and on Enuresis arising from Irritability, Weakness, or Inflammation of the Bladder and Urinary Organs*, that it should not be overlooked that a cure of enuresis will be greatly facilitated by certain moral and dietetic measures. For instance, any bad habit of not getting out of bed for the purpose of emptying the bladder at proper intervals should be counteracted. The quantity of fluids taken by the patient should be moderately restricted, particularly in the evening. This constitutes the real secret of the occasional success of the plan of treatment termed "Dietta Sicca," resorted to by some practitioners for the purpose of diminishing the excessive secretion. It consists in giving thick soups, bread, roast, or baked meat, fish without sauce, and dried fruits; the amount of liquid nourishment is gradually lessened, and the patient's thirst is assuaged, by the use of baths. This plan, however, is useless when enuresis depends on actual disease of the bladder or kidneys. The usual diet should be selected chiefly from articles of food which, although nutritious, are unstimulating to the kidneys or to the bladder, and which are not difficult to digest. Of these, none is so well adapted as milk. Amongst the most objectionable articles of diet may be enumerated all liquids which are taken when hot, especially tea, spices, pastry, salted and preserved meats, and most compound dishes. The general remedial measures of sea-bathing, change of air, and exercise, will prove the most useful in atonic, strumous cases; but the patient should be cautioned with respect to riding on horseback, which is productive of the disorder in many persons of a delicate organization, and will, when excessively indulged in, frequently render the affection serious, and almost intractable to medical treatment.—*Half-Yearly Abstract.*

Book Notices.

The Physiology and Pathology of the Mind. By Henry Maudsley, M.D., London; Physician to the West London Hospital; Honorary Member of the Medico-Psycological So-

ciety of Paris; formerly Resident Physician to the Manchester Royal Lunatic Hospital, etc., etc. New York: D. Appleton & Co., 443 and 445 Broadway. 1867.

This is an elegantly published octavo volume of 442 pages. It is divided into two parts. The first part relates to the "Physiology of Mind," and embraces nine chapters, as follows:

1. On the Method of the Study of Mind.
2. The Mind and the Nervous System.
3. The Spinal Cord, or Tertiary Nervous Centres, as centres of reflex action.
4. Secondary Nervous Centres, or Sensory Ganglia.
5. Hemispherical Ganglia; Certical Cells of the Cerebral Hemisphere, etc.
6. The Emotions.
7. Volition.
8. Motor Nervous Centres, or Motorium Communi.
9. Memory and Imagination.

Part Second treats of the "Pathology of the Mind;" and is divided into seven sections, as follows:

1. On the Causes of Insanity.
2. On the Insanity of Early Life.
3. The Varieties of Insanity.
4. The Pathology of Insanity.
5. The Diagnosis of Insanity.
6. The Prognosis of Insanity.
7. The Treatment of Insanity.

The author of this work has made a systematic attempt to elucidate the pathology and treatment of mental diseases, by the principles and facts of physiology. The general scope of the work is sufficiently indicated by the table of contents, which we have quoted. The author says, in his preface, "The aim which I have had in view throughout this work has been twofold; first, to treat of mental phenomena from a physiological rather than from a metaphysical point of view; and, secondly, to bring the manifold instructive instances presented by the unsound mind to bear upon the interpretation of the obscure problems of mental science."

We think every reader will find it an interesting and instructive book.

For sale by S. C. GRIGGS & Co., 39 and 41 Lake Street. Price, $4.00.

Essentials of the Principles and Practice of Medicine. A Handy-book for Students and Practitioners. By HENRY HARTSHORNE, M.D., Professor of Hygiene in the University of Pennsylvania, etc., etc., etc. Philadelphia: HENRY C. LEA. 1867.

This is a small-sized octavo volume, of 417 closely printed pages. It opens with an introductory chapter on Medical Systems or Theories, which gives a brief but interesting resume of medical history. Then follows four sections under the head of Principles of Medicine. The first is devoted to General Pathology; the second to Semeiology; the third to General Therapeutics; and the forth to Nosology. These sections occupy about 100 pages. Part Second is devoted to Special Pathology and Practice, and embraces a very brief consideration of all the diseases usually included in works on practical medicine. It closes with several pages of Formula referred to in the body of the work, and a copious index. As a sylabus or abstract of practical medicine and pathology, this little work of Dr. HARTSHORNE is the best that has come under our observation.

For sale by S. C. GRIGGS & Co. Price, $2.63.

The Principles and Practice of Disinfection. By ROBERTS BARTHOLEW, A.M., M.D., Professor Materia Medica and Therapeutics in the Medical College of Ohio, etc., etc., etc. Cincinnati: R. W. CARROLL & Co., West 4th Street. 1867.

This is a very neatly printed monograph of 111 pages. It may be read with pleasure and profit by all who are interested in the important subject of disinfection.

Prize Essay on Vital Statistics. By FRANKLIN B. HOUGH, M.D., of Lowville, N. Y.

This is a pamphlet of 37 pages, being the Essay to which was

awarded the Brinsmade prize of $100, by the New York State Medical Society, in February, 1867. The subject of which it treats is of great importance. One of the leading objects of the writer was to present a feasable plan for making and tabulating hospital reports, records of private practice in medicine, surgery, and obstetrics; together with the draft of a law for the registration of births, marriages, and deaths.

We have not had time to examine the plan presented, but will endeavor to refer to it again at a future time.

Report on Epidemic Cholera. Circular No. 5. Surgeon Generals Office, War Department, May 4th, 1867.

This report is in pamphlet form, folio size, 65 pages; and contains a full account of the cholera as it affected the United States Army in 1866. It contains full statistical tables, and abstracts from official reports, of much value, in making up the statistics and history of this much dreaded disease.

The Quarterly Journal of Psycological Medicine and Medical Jurisprudence. Edited by Wm. A. Hammond, M.D., etc. New York: A. Sampson & Co.

We have just received the first number of this new Quarterly. It is published in excellent style; the type and paper being of the best quality. It contains 160 pages of reading matter; and is devoted to a most important field of medical study and literature. We earnestly hope it will meet with an abundant patronage. Subscription price $5 per annum, or $1.50 for single copies. Published at 60 Duane Street, New York.

Editorial.

Duffield, Parke & Co.—On the last page of the cover will be found the advertisment of the above Drug and Chemical Manufacturing Company of Detroit, Michigan. We think it is one of the best and most reliable establishments in our country.

Chicago Medical Society.—At the regular meeting of the Chicago Medical Society, held on the evening of August 23d, 1867, Dr. R. M. Lackey presented a report concerning the sanitary condition of the West Division of the city, and the prevalence of diseases. The report presented several items of interest, and led to a discussion, in which several members participated.

Dr. Fenn, resident-physician, or interne, of the County Hospital, presented two pathological specimens, obtained from *post mortems* at the Hospital. The first, was the kidneys from a young woman, who died from pulmonary phthisis. For several weeks before her death the stomach had tolerated but little food, and rejected cod-liver oil. Her lower extremities had been œdematous; the urine scanty, and highly albuminous. The kidneys, as presented to the society, were about normal size. On peeling off the capsule, or external membrane, several small tubercular deposits were found between it and the kidney; the substance of the latter was somewhat softened, and the cortical part extensively changed by fatty degeneration. Several of the pyramidal bodies were so completely transformed into fatty tissue as to have lost their natural red and striated appearance, and a large part of the cortical substance had undergone the same change.

The second, was a portion of the sigmoid flexure of the colon, from a boy who had died with dysentery. The boy had been in this country only a few weeks, and died after an illness of about ten days. His symptoms were those common to dysentery, accompanied by a strongly-marked typhoid condition of the system. In the section of the intestine presented, the mucous membrane was intensely red, with spots of dark brown; much tumefied, partly by infiltration into the sub-mucous cellular tissue, and distinctly ulcerated. The same changes were found to exist throughout the whole extent of the colon and rectum.

Dr. A. Fisher announced to the Society the death of Dr. Orrin Smith, one of its oldest and most respected members, and moved the appointment of a committee to report resolutions

expressive of the sentiments of the Society. The motion was adopted, and the Chair appointed Drs. Fisher, Davis, Paoli, Hamill, and Wickersham as such committee.

Drs. Fisher and Ross stated to the Society the results of the *post mortem* examination of Dr. Smith. He had been in feeble health for many years, but continued in active practice until within a few weeks of his death. The pericardium was found closely adherent to the heart, throughout its whole extent; the heart much enlarged, with softening of its structure and dilatation of its cavities; the semilunar valves of the aorta and the mitral valve much thickened and of cartilaginous hardness; extensive pleuritic adhesions in the left side of the chest, and partial hepatization of the lower lobe of the lung. No morbid changes in other organs were noted. The pleuritic and pericardial adhesions had evidently existed many years.

Dr. Fisher, from the committee, presented the following preamble and resolutions, which were unanimously adopted:

Whereas, It has pleased the Supreme Ruler to remove from our midst, and take to Himself a prominent member of this Society, by the death of Dr. Orrin Smith; therefore, as a tribute of respect, we offer the following resolutions:

Resolved, That, in the death of Dr. Smith, this Society has been deprived of an honorable member, the community of an experienced practitioner and a valued citizen.

Resolved, That we recognize in our departed friend and brother, a man of great energy and persevcrance, so entirely devoted to his profession and to the cause of humanity that, although advanced in life, and for many years a sufferer from organic disease of the heart, he continued to practice his profession till a few weeks before his death.

Resolved, That we tender to the afflicted family of the deceased our earnest sympathy in their sad bereavement and irreparable loss.

Resolved, That the Secretary of this Society furnish a copy of these resolutions to the family of the deceased, to each of the daily papers of the city, to the *Chicago Medical Journal*, and the Medical Examiner.

New Medical Journals.—We have received the first number of the *Leaveaworth Medical Herald*, edited by C. A. Logan, M.D., and T. Links, M.D., and published at Leavenworth, Kansas. It presents every evidence of being worthy of the patronage of the profession. The *Western Journal of Medicine and Surgery*, published at Indianapolis, also comes regularly, filled with interesting matter.

Medical Education in Chicago.—For many years a considerable number of Medical students residing in the North-western States, have resorted to the Medical Colleges in New York and Philadelphia, almost wholly on account of the supposed superior advantages for clinical study in the hospitals of these cities. However valid such an excuse may have been ten or fifteen years since, it is entirely groundless at the present time. In the present number of the Examiner, we publish the Clinical arrangements of the Cook County or Almshouse Hospital of this city, and those of the Chicago Eye and Ear Infirmary; and if we add to these the advantages which have long been afforded in the Mercy Hospital, directly under the charge of the Faculty of the Chicago Medical College; and of the St. Luke's Hospital, it will be seen that Chicago presents, to-day, as wide a field for clinical instruction and study, as can be occupied by any student or practitioner in the country.

Indeed, we doubt whether a more extensive and complete arrangement for instruction in all the departments of clinical study, can be found in any city in this country. The arrangement includes not only an ample field of practical surgery and practical medicine, but a special course in the Mercy Hospital on Diseases of the Heart and Respiratory organs, including physical diagnosis and the use of the Laryngoscope; special attention to *post mortems* and Pathological anatomy in the County hospital; and special courses of instruction on diseases of the Eye and Ear, by Dr. Hildreth, in the Eye wards of the County hospital, and by Dr. Holmes in the Eye and Ear Infirmary, including the use of the Opthalmoscope and all other modern appliances in diagnosis.

If we add to these ample facilities for clinical instruction and study, the full curriculum, the systematic order, and the lengthened lecture term of the Chicago Medical College, we shall have presented to the profession as complete an arrangement for affording a thorough education in all the departments of Medical science and practice, as can be found any where on this side of the Atlantic.

We cordially invite every student and practitioner in the country, to visit our Medical Institutions, and satisfy themselves concerning the correctness of our statements.

DEATHS.—The last number of the Boston *Medical and Surgical Journal*, contains an account of the death of John Mason Warren, of that city; and the daily papers yesterday, announced the death of James Jackson, of the same place, in the 89th year of his age. Thus have passed away two of the most distinguished members of our profession, members who have conferred honor upon the profession to which they belonged.

COOK COUNTY HOSPITAL.

The Cook County Hospital, is in fact the almshouse hospital for this city and county. It fills the same place here that Bellevue does in New York.

Its managers have exhibited both wisdom and liberality, in opening its wards for systematic and efficient clinical instruction. Wisdom, because a public hospital constantly open for clinical instruction to students and practitioners, will always be more punctually and faithfully served by the attending physicians and surgeons, and the wants of the sick better cared for, than where no such instruction is given. Liberality, because, instead of making it the *attache* of any particular college, they have selected for the Medical and Surgical Board, some of the more active, enterprizing, and efficient members of the profession who are not connected with either of the Medical Colleges in the city, but who will teach all students who seek its advantages and comply with its regulations.

Dr. Edwin Powell, whose name appears in the list of attending surgeons, has resigned his chair in Rush Medical College, for the express purpose of accepting the place of surgeon to the Hospital. As at present organized, we do not hesitate to assure students throughout the North-West, that the Cook County Hospital in this city, affords them just as good facilities for the Clinical study of disease, including Morbid Anatomy, as can be found in Bellevue, New York, the Pennsylvania Hospital at Philadelphia, or the Chaity Hospital in New-Orleans. We take pleasure in appending the following official cicular issued by the Medical Board of the Hospital:—

Cook County Hospital, City of Chicago.—Winter Term of Clinical Instruction.—1867-68.—The Winter term of Clinical Instruction in the Cook County Hospital, will commence on the 1st of October, 1867, after the usual vacation of three months. The continued prosperity and growth of this Institution, with its large number of patients, representing every variety of disease, furnishes to the student an almost unlimited field for clinical study. The Annual Report for the year ending July 1st, 1867, shows that during the year *one thousand and thirty-seven* patients were treated in the Hospital. The number discharged during the year was *nine hundred and twenty*. During the year there were in the lying-in department *sixty-six* births. *Thirty-one* capital operations were performed in the surgical department. There were *seventy-three* autopsies, which afforded an excellent opportunity for the study of morbid anatomy. The field for the study of diseases of the chest is probably not excelled in any hospital in this country. In addition, the out-door, or Dispensary department of the Hospital, furnishes a large number of interesting cases. This is in charge of the medical staff of the Hospital, and is in operation from 1 to 2 o'clock P.M. every day of the week, (Sunday excepted,) affording an excellent clinic.

The Pathological Museum now contains many very interesting specimens, and is available for the study of morbid anatomy.

It is the purpose of the medical staff to use and develop the immense resources of the Hospital for the promotion of medical education, and to add whatever is possible to the means and facilities for medical study attainable in Chicago. The object for which they will earnestly labor being an elevated standard of professional knowledge among the students, and such junior practitioners as may seek our city for these objects.

There will be five clinics a week from October to July, and two a week during July, August and September. The clinical days are Tuesdays, Fridays and Saturdays, 1½ o'clock P.M. The medical clinics will be given by Drs. Ross, Bevan, Jones and Lyman; the surgical by Drs. Powell, Bogue, Smith and Fitch. Dr. Hildreth will hold an opthalmic clinic every Saturday.

Special courses of instruction will be given during the winter on Auscultation and Percussion, by Dr. Ross; on Microscopy and Morbid Anatomy by Dr. Lyman; on Surgical Dressings by Dr. Bogue; on the Opthalmoscope by Dr. Hildreth.

Fee for admission to the Hospital, $5.00. Graduate practitioners of medicine visiting the city, and desiring to follow the practice of the Hospital, are admitted without charge.

MEDICAL ORGANIZATION IN CANADA.

The following indicates a movement in the right direction among our Canadian neighbors.—EDITOR.

REPORT.—*Whereas;* By the "British North American Act, 1867." the union of the Provinces of Canada, Nova Scotia and New Brunswick is effected, and united Legislative and Executive action is secured: and

Whereas; Closer connection must necessarily take place in all the relations of life; religious, moral, and social: and

Whereas; "Uniformity of Laws in Ontario, Nova Scotia, and New Brunswick" is provided for in the said Act: and

Whereas; Uniformity in the laws which regulate life and health, and especially those governing the exercise of the medical profession, stand preëminent:

Therefore: The Medical Society of Quebec,—the oldest city in the Dominion of Canada, deems it a duty to take action in the premises; and has come to the conclusion, that the most equitable, surest, and best means of attaining the desired end, will be by an union of the members of the medical profession of the Dominion of Canada in Conference, at as early a period as practicable after the consummation of the union of Canada takes place, under Her Most Gracious Majesty's proclamation.

Wherefore: The following resolutions were *unanimously* adopted. and are now respectfully submitted to the consideration of the medical profession of Canada, for such action as may be agreed upon in Conference.

Resolved, 1. That in the interest of the public, and the medical profession, it is desirable to adopt such means as will insure a *uniform* system of granting license to practice Medicine, Surgery, and Midwifery, throughout the Dominion of Canada.

Resolved, 2. That in future, all medical degrees or diplomas, of Universities, Colleges, or Schools of Medicine, shall have an honorary value, and licences to practice Medicine, Surgery or Midwifery, in the Dominion of Canada, shall be granted by a Central Board of Examiners, in each Province, before whom all holders of Degrees in Medicine, or Diplomas for Surgery, or Midwifery, shall appear for examination.

Resolved, 3. That a committee of seven members be named by the Medical Society, to confer with the various Universities, Colleges, and Medical Schools in Canada, on the subject of the establishment of a Central Board of Examiners, before which, all candidates for license to practice medicine in the Dominion of Canada, shall be examined.

Resolved, 4. That the Quebec Medical Society recommends the calling of a Convention of Medical Delegates, from Universities, Colleges, Schools, Medical Societies, etc., in the Dominion of Canada; to meet at the city of Quebec, on the second Wednesday in October, 1867, for the purpose of adopting some concerted action, on the subject of medical legislation, in conformity with this report, and for the formation of a "*Canadian Medical Society.*"

The whole respectfully submitted.

Laval University. Quebec, 18th June, 1867.

W. MAXWELL, M.D., *Chairman.*

R. H. RUSSELL, M.D., *Secretary.*

NEW SYDENHAM SOCIETY.

We call special attention to the following notice of this Society.

1116 Girard St., PHILADELPHIA.

Dear Sir,—As Honorary Secretary of the New Sydenham Society, I beg to bring its publications under your notice, and to invite you to enrol yourself as a member.

The Society was instituted for the purpose of supplying certain acknowledged deficiencies in the existing means of diffusing medical literature. Works of a *practical* character and of *permanent* value are selected for publication.

You can acquire the whole of the works issued by the Society from 1859 to 1867 (35 volumes, including 28 vols. handsomely bound in cloth, gilt, and 7 fasciculi of the Society's Atlas of Portraits of Skin Diseases, embracing more than 20 life-size colored plates, 18×24 inches), for Nine Guineas; or you can commence with either the past or the present year.

The subscription is One Guinea per annum, payable in advance.

I undertake to receive your annual subscription, and to hand you the books as soon as they are issued.

I am, Dear Sir, truly Yours,

RICHARD J. DUNGLISON, M.D.,
Honorary Local Secretary.

Series for 1866.

I. Bernutz and Goupil on Diseases of Women. Vol. I; II. Fasciculus of Atlas of Portraits of Diseases of the Skin (three beautiful colored plates life size); III. Hebra on Diseases of the Skin. Vol. I; IV. Bernutz and Goupil on Diseases of Women. Vol. II.

Series for 1867.

I. Griesinger on Mental Diseases; II. Biennial Retrospect of Medicine and Surgery; III. Fasciculus of Atlas of Portraits of Disease of the Skin (colored plates); IV. Hebra on Diseases of the Skin. Vol. II.

Annual Subscription $7.50, in advance, (the duty, etc. payable on arrival of the vols., amounting to about $2.50 additional).

Obituary.—Death of Dr. Orren Smith.—Another of our most useful and valuable citizens has departed this life. With deep sorrow, which will find an echo in the heart of every man who knew him, we announce the death of Dr. Orren Smith, which took place at his residence, No. 236 Illinois Street, on Monday evening.

For years past the deceased had been troubled with heart disease. During all this time his life hung by a single thread, but by sheer force of will and tenacity of purpose, he clung to that life, which has been a real and substantial benefit to his fellow beings.

It is only recently, and at the earnest solicitations of his friends, that he gave up an extensive and lucrative practice, to become himself a patient, and receive the kind offices from others which he himself had so often extended to suffering humanity.

Dr. Smith was born in Washington County, Vermont, in July, 1806, and was consequently at the time of his death, sixty-one years of age. He graduated in 1830, as a medical student, at the University of Vermont, and practiced for upwards of twenty-five years at Montpelier and vicinity, where he was distinguished for his skill as a physician, and whence he was appointed in 1850 to the Professorship of Obstetrics and Diseases of women and children, in the University where he graduated, which position he filled with distinguished ability until 1857, when he resigned on account of ill-health, and left Vermont for a change of climate. After spending a year or two at the South, Dr. Smith finally, in December, 1857, settled in Chicago, where he continued in the practice of his profession up to the very hour of his last prostration and sickness.

New York Medical Socety on Consanguineous Marriages.—At the late meeting of the "Medical Society of the State of New York," it was resolved: "That a Committee be appointed to investigate and report upon the result of consanguineous marriages, etc."

If such marriages come under your observation, you will confer a favor by answering the following questions, and transmitting such report, before November next, to the undersigned, one of the Committee appointed:

1. Name (initials) and age of *Husband.*
2. Nativity.
3. Age when married.
4. Constitution.
5. Health, deformities, peculiar diathesis.
6. Health of his family, hereditary diseases, deformities, etc.
7. Name (initials) and age of *Wife.*
8. Nativity.
9. Age when married.
10. Constitution.
11. Health, deformities, peculiar diathesis.
12. Health of her family, hereditary diseases, deformities, etc.
13. How are the parties related to each other?
14. How long married?
15. How many children, or sterility.
16. Abortions; cause; how many, and at what period?
17. Children died, at what ages and from what diseases?
18. The constitution, age and present health of living children, deformities, mental conditions, idiocy, cretinism, deaf, mute, blind, epilepsy, albinism, insane, etc.

19. Remarks and other information.

Hoping to receive your valuable coöperation for the advancement of medical science,

I remain yours, most respectfully,

ROBERT NEWMAN, M.D.

118 W. Houston St., New York, July, 1867.

Clinical Instruction at the Chicago Charitable Eye and Ear Infirmary.—During the winter courses of instruction at the medical colleges of Chicago, there will be regular clinical lectures on diseases of the eye at the Infirmary. This institution offers the medical student and practicing physician unusual opportunities for the practical study of diseases of the eye and of their medical and surgical treatment.

During the past year, *five hundred and fifty-five* patients were treated at the Infirmary, of which *eighty-seven* required important surgical operations. An aggregate of *3197* patients have received the benefits of the institution since its organization, nearly ten years since.

There has been an average daily attendance of 26 patients at the infirmary during the past three months.

Dr. Holmes will give special courses on the use of the ophthalmoscope.

The Legislature of the State of Illinois, at its last regular session, appropriated the sum of $10,000, for the support of the poor of the State, during treatment, at the Infirmary for diseases of the eye or ear.

The Legislature of the State of Wisconsin recently appropriated the sum of $500, for the support of Wisconsin soldiers receiving treatment at the Infirmary for diseases of the eye, contracted in the army during the late war.

Trustees—W. L. Newberry, President; P. Carpenter, Vice-President; S. Stone, Secretary; E. B. McCagg, Treasurer; W. H. Brown, William Barry, T. B. Bryan, C. G. Hammond, E. C. Larned, Wesley Munger, E. W. Blatchford, Daniel Goodwin, Jr.

Consulting Surgeons—Prof. J. W. Freer, M.D., Prof. H. A. Johnson, M.D.

Attending Surgeons—E. L. Holmes, M.D., Prof. E. Powell, M.D.

Superintendent—G. Davenport. *Matron*—Mrs. Davenport.

CAUSES OF DEATH.

Accidents,	16	Fracture, Compound, (leg,)	1
Anasarca,	1	Gastritis,	3
Apoplexy,	2	Gastro Enteritis,	1
" Cerebral,	2	Gangrenous Sore-throat,	1
Brain Disease,	1	Hydrocephalus,	17
" Congestion of,	6	Heart Disease,	2
" Softening of,	2	Heart Disease, Valvular of,	2
" Concussion of,	2	Inflammation of Bowels,	5
" Inflammation of,	4	Inflammation of Liver,	1
Bright's Disease,	1	Inanition,	4
Bronchitis,	3	Jaundice,	1
Cancer Duodenum,	2	Lungs Atelectasis,	1
Canker,	1	Laryngitis,	1
Caries of Spine,	1	Measles,	8
Congestion of Lungs,	3	Meningitis,	5
Cholera,	3	Meningitis, Cerebro-Spinal,	3
Cholera-Morbus,	3	Mortification,	1
Cholera Infantum,	177	Old Age,	2
Cirrhosis of Liver,	1	Obstruction of Bowels,	1
Convulsions,	33	Over-exertion,	1
Cyanosis,	1	Paraplegia,	1
Disease of Chest,	1	Paralysis,	3
Diabetes,	1	Peritonitis,	4
Diarrhœa,	25	Pneumonia,	10
Debility,	7	Phthisis Pulmonalis,	29
Diphtheria,	2	Premature Birth,	13
Dysentery,	10	Breast,	1
Delirium Tremens,	1	Scirrhus Uterus,	1
Dyspepsia,	2	Small-Pox,	6
Dropsy Abdominal,	1	Stillborn,	12
Dropsy of Brain,	1	Stricture Intestines,	1
Encephalis,	1	Suicide,	2
Enteritis,	6	Sunstroke,	1
Exhaustion,	1	Suffocation,	1
Erysipelas,	1	Tabes Mesenterica,	25
Fever, Puerperal,	2	Teething,	13
Fever, Typhoid,	9	Tumor of Womb,	1
Fever, Typhus,	2	Whooping-Cough,	4
Fever, Scarlet,	1	Worms,	1
Fever, Intermittent,	1	Ulceration of Stomach,	2
Fungus Hæmatodes,	1	Unknown,	7
		Total,	538

NATIVITIES.

Chicago,	242	England,	10	On Sea,	1
Illinois,	7	Norway,	9	Switzerland,	1
Other parts U. S.,	84	Sweden,	12	St. Helena,	1
Germany,	60	Shetland Isles,	1	France,	1
Ireland,	35	Prussia,	3	Darnstadt,	1
Bohemia,	10	Scotland,	4	Unknown,	46
Austria,	2	Canada,	5		
Holland,	2	Denmark,	1	Total,	538

AGES OF THE DECEASED. — Under 5 years, 363; over 5 and under 10 years, 17; over 10 and under 20, 10; over 20 and under 30, 36; over 30 and under 40, 29; over 40 and under 50, 19; over 50 and under 60, 6; over 60 and under 70, 7; over 70 and under 80, 4; over 80 and under 90, 2; still born, 16; unknown, 29. Total, 538.

THE

CHICAGO MEDICAL EXAMINER.

N. S. DAVIS, M.D., Editor.

VOL. VIII. OCTOBER, 1867. NO. 10.

Original Contributions.

ARTICLE XLII.

ON THE CAUSE AND TREATMENT OF PANNIFORM CORNEÆ, OCCURRING WITH GRANULAR OPHTHALMIA.

By JOS. S. HILDRETH, M.D., Chicago.

Read to the Illinois State Medical Society, June, 1867.

No disease of the eye is so universally prevalent as granular ophthalmia. None demands more skilful management. It is the parent of disorders producing the saddest results. Preëminent stand those which attack the cornea and darken the windows of life. To analyze their pathology and improve their treatment, should enlist our most earnest endeavors. The one selected for the subject of this paper is of absorbing importance.

A vascular and more or less opaque condition of the cornea is, technically, called "*pannus.*"

All keratic disease, accompanied by development of sanguiniferous vessels in the cornea, is termed panniform.

From being limited to a slight epanchement, with a few delicate vessels spanning the periphery, this affection may become a dense vascular exudation, firmly organized and involving the whole cornea. The primary cause may be:

1st. Mechanical, as with deviated cilia; when their removal

from contact with the globe will abate corneal disturbance, if uncomplicated.

2d. Inflammatory action, producing solution of continuity, as phlyctenulæ, or abscess. As soon as restoration of the parts is completed, vascularity disappears from the cornea, in absence of other difficulty.

3d. Keratitis, consequent to corneal anæsthesia, without ntra-ocular pressure. Here the cornea will remain panniform, until the cause of its anæsthesia, and, thereby defective nutrition, has been removed.

4th. Mechanical and pathological disturbances may coöperate, as in granular ophthalmia.

The following cases represent diverse aspects of the affection in question. Their lids were granulated as nearly alike as possible, and general condition practically equal. With one, the corneæ were quite free from panniform encroachment, while with the other, they had become the seat of dense vascular exudation. That granular lids alone are not always sufficient to induce panniform disturbance in the cornea is, therefore, evident.

With the first patient, the pupils were fully susceptible to atropia, and its effects remained the ordinary length of time. The corneæ were also sensitive to the lightest touch. The cornea is to be tested by touching it lightly with the point of a camel's hair brush, previously wet and stripped quite dry, or a small twisted roll of unsized paper, also slightly moistened.

These symptoms are of peculiar import, as showing the corneæ had escaped becoming panniform, because they were endowed with sufficient vitality successfully to resist the constant friction of granulations upon them. Had the roughness of the thickened palpebral lining been firm enough to have disturbed the integrity of the corneæ, or, had their nutrition, from any cause, been defective, vascular development would have resulted.

With the second patient, the pupils, though somewhat obscured by the panniform exudation, were seen sufficiently well to mark their condition. Atropia could only partially take

effect,* and its influence was of short duration. The corneæ, correspondingly, had lost their sensitiveness to touch. This last symptom, though influenced by the change of structure in the parts, is, however, of practical importance.

It is evident, panniform affections are consequent on defective nutrition of the membrane specially involved. The vascular development vicariously contributing to the temporary maintainance and the repair. When disposing causes are long continued, this vascular exudation, from being equal to the support and restoration of the impaired cornea, becomes so firmly organized as to constitute in and of itself an affection of difficult management.

As already stated, these causes may be mechanical and pathological. The first is due to friction of the granulated lids; the second, a general or local influence, or both combined; the one being a cachexia, the other a certain condition of the ciliary ring which, "without intra-ocular tension," lessens dilatability of the pupil, and so depresses the nervous integrity of the cornea as to produce anæsthesia and materially impair its nutrition. It thus becomes an agent to induction of panniform disease.

Though the general health be restored and granulations removed from the lids, the corneæ will make unsatisfactory improvement while this depressing influenee continues.

This affection of the ciliary ring, I have frequently found in kerastic diseases, and invariably present, to greater or less degree, in vascular exudation of the cornea, occurring with granular ophthalmia. When acute or spasmodic, it often persists until corneal disturbance is developed; relaxes again, under some exciting cause, to be renewed; then decline, and may thus continue until change of structure in both cornea and ciliary ring becomes so great as to demand surgical relief.

As restricted dilatability of the pupil and lessened effects of atropia are pathognomonic symptoms, so they become therapeu-

* Four grains of neutral sulphate of atropia to an ounce of distilled water, is the strength ordinarily employed. In some cases, a ten grain solution may be used.

tic guides. Corneal anæsthesia is also a concurrent sign; but, as before suggested, allowance must be made for exudations and other changes in structure, which tend to diminish tactile sensibility.

One of the most important steps in treatment for some forms of keratitis, especially panniform with granular lids, is to obviate the depressing influence upon the nutrition of the cornea, caused by that peculiar condition of the ciliary ring whose diagnosis has just been described. To obtain this result, the pupil must be kept well dilated until its full susceptibility to atropia returns and contraction is not followed by corneal anæsthesia. That state of the eye called atropinism must be avoided, by not using more atropia than is required to maintain dilatation. I have not observed it in this class of cases, but should it occur, some other mydriatic, such as hyoscyamus, may be employed for a time.

When, instead of mechanical complication on the part of the iris, persistent and energetic use of atropia produces but limited dilatation of the pupil and impartial relief of existing corneal anæsthesia, division of the ciliary ring becomes requisite. The operation should be performed so as thoroughly to divide what is comprised under the term of "ciliary muscle" or ring, from the insertion of the iris to its posterior limit. Atropia will then take effect, and, to secure full benefits of the operation, its use must be continued in the manner above described.

When synechia opposes dilatation, recourse may be had to the anæsthetized state of the cornea, in determining the effects of the drug, or of an operation. But mechanical complications should be obviated by appropriate means when required.

The local excitement following this operation is usually quite light. In cases of long standing, it may become considerable; though, in my own experience, not only free from danger, but productive of good results, in hastening resolution of the panniform exudation. As soon as the state of the eye will permit, stimulating applications within the lids should be employed. These are various: but from the bromide of ammonium, with tannin, and a mercurial ointment, I have obtained the best results.

℞. Bromide of Ammonium,---------- ℥ss. to ℥j.
Tannin, ---------- ℥j.
Glycerine, (pure,)---------- ℥j.

M.S.A.

To be applied by a camel's hair brush to the conjunctiva, the lids being everted.

℞. Red Precipitate,---------- gr. vj.
Calomel, ---------- gr. viij.
Sulph. Zinc,----------
Camphor,----------āā gr. j.
Lard, (fresh,)---------- ℥j.

Mix well.

A piece about twice the size of a hemp seed within the lids.

When the panniform exudation is dense and firmly organized, the operation of syndectomy is indicated. This consists of excision of a band of the conjunctiva, about four millimetres in width, from immediately around the periphery of the cornea. It should be so thoroughly removed as fully to expose the sclerotic beneath. The effect, of course, is to cut off all immediate connection between the conjunctiva and network of abnormal vessels in the cornea. But the results will be found more satisfactory if the ciliary ring, at the same time, be divided.

RESUME OF TREATMENT.

a. Full and maintained dilatation of the pupil until the close.

b. Stimulating applications within the lids every second day, or as often as the state of the parts will permit.

c. Division of the ciliary ring, to allow dilatation of the pupil, when it cannot otherwise be obtained.

d. Syndectomy in case the panniform exudation is too firmly organized for removal by medical means.

e. Appropriate constitutional measures.

Manifold experiment has demonstrated the efficacy of the above, for the relief of panniform disease of the cornea. Further, it has been noted that resolution of the granulations has been promoted by the means required to maintain proper dilatation of the pupil in such cases.

Favorable results are obtained by purulent inoculation of the conjunctiva. But the loathsome nature of the disease thus engendered, the danger of infection to attendants, and the uncertainty of results, render other treatment very desirable.

Chicago, June 1st, 1867.

ARTICLE XLIII.

REPORT ON CHOLERA IN 1866.

By H. WARDNER, M.D., Chairman of Committee.

Read before the Alexander County Medical Society.

To the Alexander County Medical Society,

Gentlemen:—Your Committee appointed to investigate the subject of cholera, and to report on its character, progress, and prevalence in the City of Cairo and vicinity, beg leave to submit the following, as the result of their labors:—

The disease first made its appearance about the first of August. The first case which attracted special notice, occurred on one of the wharf-boats on the 4th, and from this date to the 15th, the disease increased rapidly and was, comparatively, quite fatal. It prevailed especially on Commercial Avenue, between Second and Sixth Streets, and in the more filthy localities about the city. The negroes suffered from its ravages much more than the white population.

Immediately after its first appearance, a meeting of physicians was held at the office of Drs. Wardner and Gericke, for the purpose of securing unity of action in the necessary steps to be taken to stay the scourge and drive it from our city.

A committee was appointed to wait upon the City Board of Health, and to urge immediate and efficient regulations in regard to cleanliness, and the sale of unwholesome articles of diet at the markets. The efficiency of the Board in carrying out the suggestions of the Medical Faculty, was, no doubt, the means of arresting the disease and driving it from our midst.

From the 15th of August, it continually abated until the 25th, when it had almost, if not entirely disappeared. Since that date, there have been a few sporadic cases, two or three of which proved fatal.

The total number of deaths from cholera in this city, from its first appearance to the present date, October 9th, a period of seventy days, is *seventy-eight*, giving a fatality of about twenty per cent. This estimate includes all cases of simple and aggravated diarrhœa, cholerine, and cholera-morbus, which, in some degree, always precede an attack of cholera, and, in cholera times, may well be called the first stage of that disease; for gastric and intestinal irritation, whatever be its degree or cause, may prove to be the advance guard which opens the portals, batters down the vital defences, and invites the dread enemy to enter and take possession.

The following case, taken from one of the reports handed to your committee, is here given as a type of the disease, as it appeared in its more active form:—

Mr. ——, aged 35 years, was taken with diarrhœa in the morning. He had eaten freely of cucumbers the evening previous. The diarrhœa continued with increasing severity until 2 o'clock on the following morning, when medical aid was first called in. His condition at that time, is given as follows: Vomiting and purging every few minutes; intense thirst, which he in vain tried to allay by drinking all the water he wanted, but every glass of water swallowed was very soon ejected; every time his bowels moved he would discharge near half a gallon of the rice-water evacuations; his skin was covered with a cold, clammy perspiration; wrist pulseless; legs cold to the knees; arms cold to the shoulders; eyes sunken; nostrils contracted; and lips of a dull leaden hue. He was indifferent in regard to his condition, and although his mind was clear, he had no control over his desire for water, and, unfortunately, his attendants had not the force of character necessary to control him, nor to carry out the physician's orders. In about two hours, he was suffering severely from cramps, which were readily relieved by the application of the following lotion, *viz.*:—

℞. Bisulphide of Carbon, ---------- 1 oz.
Tinct. of Camphor,---------- 3 oz.

Mix. Saturate a cloth and apply over the seat of pain.

The vomiting and purging ceased about 8 A.M. A thorough course of stimulants, excitants, and revulsives was persevered in, but all efforts were in vain, death held the vantage ground, and he expired at 6 P.M., thirty-six hours after the attack, perfectly rational to the last moment.

The following report of a case, is taken from the report of another physician, who was called early and saw the patient just one hour from the first of the attack:—

Mr. ——, aged 32, was taken at 11½ P.M., Aug. 13th, and was visited at 12½ A.M. His condition is given as follows, *viz.:* "Active vomiting and purging, with some cramping of the lower extremities; pulse feeble, but not much prostrated. The vomiting and purging first yielded to the treatment, then the cramps shortly ceased, and in about two hours all the symptoms abated, and convalescence was rapid and complete."

The treatment in both cases was active and equally in accordance with the advancement of medical science. They are here given as fair examples of cases which occurred in the practice of every practicing physician of the city; and show, also, the importance of the early attendance of the physician, as a necessary means of saving life.

All the reports of physicians, which your committee had the honor to receive, concur in the statement that the *third stage* of cholera, or collapse, is a term almost synonymous with *death.* Only one or two recoveries have been known to occur from that stage during the prevalence of the disease in our city.

The reports of private physicians show a degree of knowledge and uniformity in treatment, which speaks well for the faculty, in a city of so few literary and professional advantages, and for their interest in their profession and the welfare of their patients; for without this professional zeal and ambition, a practitioner will hardly take the time and trouble to keep pace with the advancement in pathology, therapeutics, and the different branches of the profession, as these reports show their authors to be doing.

The following is an outline of treatment, as gleaned from the different reports:—

First. In the primary, or diarrhœa stage, low diet, rest, and anodynes, astringents, and alteratives, combined according to the circumstances of the case, and the judgment of the practitioner. The following has been quite generally used:—

Recipe.—Laudanum, one drachm; tinct. of cardamon seeds, fluid extract of rhatany, fluid extract of blackberry root, aromatic syrup of rhubarb, and syrup of ginger, of each half an ounce. Mix. Take a teaspoonful after each discharge until relieved.

Second. In the second, or active stage of vomiting and purging, with cramps, the following remedies have been generally used, in combinations suited to each special case, and according to the judgment of the physician in attendance, *viz.*:—

Recipe.—Tinct. of capsicum, tinct. of camphor, tinct. of rhubarb, tinct. of opium, and chloroform, the latter being considered as the base of the mixture, given in doses varying from 15 drops to a teaspoonful, repeated as frequently as the circumstances of the case required, from fifteen minutes to one hour or more between doses. It has usually been alternated with, or followed by, alteratives combined with opium.

One practitioner has recommended 10 grains of calomel every hour, as he claims, with good success, and has administered as high as 120 grains before discontinuing the remedy. He considers this a curative treatment. Another practitioner has used a solution of chloride of sodium, in combination with capsicum, or black pepper, in teaspoonful doses every fifteen minutes, with good success. This practice is based on the theory that in the loss of the balance of the vital powers, the blood loses its saline constituents during the active stage of the disease, and that collapse begins with the coagulation of the blood in the capillary vessels, because of the absence of salines, which are necessary to preserve the fluidity of the fibrine and the healthy form and tone of the corpuscles.

Dr. WILLIAMS, in his Principles of Medicine, page 143, referring to cholera, says:—"There can be no doubt, therefore,

that the blood coagulates in the vessels for want of saline matter, and the red corpuscles become dissolved and altered."

The authorities inform us that the injection of saline solutions into the veins of choleric patients in collapse produces a renewal of life, a return of heat, healthy color of the skin, etc., but that the discharges will often return, and the disease will terminate fatally. Why? May it not be because in the loss of the equilibrium of the fluids, the exosmose predominating and the mucous membrane of the intestines being in a state of irritation, the coats of the capillary vessels relaxed, and, consequently, *receiving* too large of a share of the revived circulating fluid without the power of contraction and propulsion, the loss of serum very soon leaves the blood in its previous stagnant condition?

Now, it is believed that the administration of the saline remedies, especially during the active stage of cholera, lessens the exudation of the fluids of the blood, and tends to restore the equilibrium between the endosmose and exosmose; and the excitant given in combination with it assists in reëstablishing the nervous susceptibility and the healthy absorption of fluids by the capillaries of the stomach and *prima via.* But, this not being the proper place for a lengthy argument in favor of *any* particular theory or treatment, we only add that the practice is claimed to be very successful, and a more consistent manner of using remedies than by forcing them into the circulation with a syringe.

Another practitioner has suggested, and employed in his treatment, the officinal solution of chloride of calcium, in conjunction with the usual remedies, as before described. This practice is based on the theory of decomposition of the blood, and is considered efficient in counteracting the deleterious influence of gases and other poisonous substances resulting from such decomposition. We consider this suggestion worthy of further trial. We know it to be a valuable agent in low and putrid fevers, and would like to hear or read an argument in favor of its use in cholera.

Externally, free use has been made of artificial heat, friction,

counter-irritation, etc. Among the more efficient means for allaying the cramps, we find the application of chloroform on porous paper covered with oiled-silk, to prevent evaporation, a valuable remedy. If the surface has been previously irritated by the use of mustard, the chloroform will take effect much more speedily. The lotion composed of bisulphide of carbon and tincture of camphor, applied to the parts affected with cramps, will afford immediate relief. Disinfectants should be continually used in the sick room, and the cholera discharges destroyed by chemical agents at once. In addition to the foregoing outline of treatment, the strictest watch must be kept over the patient, to prevent him from indulging his uncontrolable thirst for cold water. Unless this precaution be heeded, the most skilful treatment will be very liable to prove useless.

The disease having abated, great care must be taken in the patient's diet during convalescence. At first, nourishing drinks, given in small quantities and frequently repeated, together with animal broths and extract of beef well salted, together with such mild medicinal agents as may be deemed proper by the attending physician, will shortly restore the patient to health.

The reports furnished your committee do not exhibit the difference in the prevalence of the disease between the white and black races, but from casual observation it is estimated that in every five cases, three occurred amongst negroes. Amongst the whites, it prevailed, with few exceptions, where the poor and destitute were congregated, and especially in the more filthy localities. The Sewell House and its neighborhood is cited as an illustration. The cistern in use at that house was within five feet of a filthy privy vault, which had so contaminated the water that the Board of Health reported that they observed but little difference in the odors arising from either. The free use of this filthy water is believed to have been the cause of the great severity and fatality of the disease in that locality. It has been suggested that the use of water from filthy cisterns has given rise to many cases of the disease. Almost every case could be easily and distinctly traced to the exciting cause, which was very frequently found to be overin-

dulgence in the use of green vegetables. Melons have been accused of producing more cases than any other article of that class. Cucumbers, cabbage, green corn, and new potatoes all come in for a share of blame.

This community may well commend the wisdom that forbade the sale or giving away of those articles of diet for a limited time, and that ordered the free use of disinfectants wherever offensive and deleterious gases were discovered; for there can be no doubt, in the minds of reasoning people, that the action of the city authorities, in that instance, was the blow that held the monster at bay and drove him from our midst. We verily believe that but for this course, he would be a terror in our city to-day.

We say to those young men of our city who organized themselves into a society for the relief and assistance of the destitute and homeless, and who by personal and pecuniary sacrifices, during the stay of the epidemic, aided many a poor sufferer, that their efforts were not in vain, and that the gratitude of the helpless is not their only reward. The memory of their noble conduct will live in the minds of this community, and be rehearsed in their praise, when they "shall have been gathered to their fathers."

In conclusion, a word about Cairo, and we have done. This city, which has borne all the opprobrious epithets of which the English language is capable, has proved herself victorious in a conflict from which Cincinnati, Louisville, St. Louis, Nashville, and Memphis have come out second best. Cairo is triumphant, and is, to-day, as healthy a city as there is in the United States. Many arguments, as well as statistics, could be brought to prove this assertion. Several physicians have sought other localities, where there is a greater demand for medical services. Those remaining, make their daily rounds in a slow, easy pace, conscious that their gratuitous advice and suggestions in sanitary matters have been, and still are, of incalculable benefit to this community, and a serious detriment to their own pockets.

ARTICLE LXIV.

VIS CONSERVATRIX.

By F. R. PAYNE, M.D.

Read before the Clark County Medical Society, July 1st, 1867.

This is a conservative power, which is alive and opposed to the inroads of all noxious and injurious agents which may be introduced into the body. When medicine was in its infancy, this power was acknowledged by all reflecting men. This knowledge deeply impresses all who have carefully observed it, that "the difference between a good physician and no physician at all, is not half so great as the difference between a good and a bad physician." A few years of careful observation at the bedside of the sick, will induce all true medical men to acknowledge the claims of this celebrated disciple of physic. He was born when organized matter was first created, making his antiquity coeval with that of Adam and Eve. From that day to this, he has been an energetic and self-reliant practitioner.

He has had his triumphs and misfortunes, but never becoming weary in his efforts to prevent the death of all living matter. At an early day, he was the Archæus of Van Helmont, and the Anima of Stahl. His power is surely great, and it is doubtless true that his existence is eternal. This being true, in the days of Van Helmont this power to cure and resist disease was impersonated. He is invisible, but yet lives in all organized matter. He has practiced his profession from the beginning of time, and is not worn out by years, or discouraged by frequent failures. His medicine is always given at the proper time and in proper doses, and is compounded with unparalleled skill, and he commits no errors on account of incorrect diagnosis. All of the various branches of our profession are perfectly understood by this long-bearded and gray-headed Dr. Archæus.

We have innumerable exhibitions of the skill of this great disciple of medicine. When man or beast is exposed to cold, (one of the general causes of disease,) the blood leaves the sur-

face, and the internal organs become engorged, the old Doctor quickly arouses the action of the heart and thus relieves the congestion, and, by so doing, prevents inflammation. If the stomach is loaded with a mixture of incompatible articles of diet, the old physician inverts the action of that organ and discharges the offending matter by vomiting; but if this cannot be done, he gets up a ferment and converts the improper food into a cathartic, and the patient is relieved by its discharge through the bowels. If a malarious or contagious poison is introduced into the system, he carries it off by arousing to increased action some of the secretory organs, and thus prevents its noxious effects. When a grain of sand or dirt enters the eye, how promptly he comes with a flood of tears to wash away the offending substance. When a piece of muscle is removed, by accident or otherwise, how quickly he sends his compound remedies and, with perfect scientific accuracy, replaces the constituent elements which are absent, and thus restores symmetry to the part. If a thorn or some other foreign element enters the flesh, he, not being skilled in the use of surgical instruments, resorts to a more complicated, but none the less effectual, mode of relief; by inflammation and suppuration the extraneous matter is removed.

This antediluvian doctor was truly great, and during the early ages of man he had no compeers. He graduated on the morning of the creation of the world, and has ever been, and will ever continue to be, a practitioner of medicine. Unlike the ordinary members of the profession, the accumulated knowledge of six thousand years has not increased his ability to cure diseases. Many of his patients died, the treatment was not infallible; hence, the necessity for assistants was clearly made manifest.

When the remedy he used for the removal of a grain of sand from the eye fails, the assistant-doctor comes in with his instruments, and by force removes the offending substance. If the stimulus of the blood (whereby cold engorges the heart and internal organs) is not sufficient to relieve the congestion, and thus prevent inflammation, the assistant-doctor renders efficient

aid by the use of artificial stimulants. When the system is filled with endemic, epidemic, or contagious poisons, this venerable doctor arouses to increased action the secreting and eliminating powers of nature and thus often throws off the poison and prevents disease. If this treatment is not successful, the assistant-doctor resorts to antiseptics and neutralizing remedial agents, and stops the destructive effects of the poison.

This power, when personified and denominated Dr. Archæus, is skilled in the profession; he never commits an error in diagnosis or treatment; he never boasts of the superior power of his remedies, but moves on quietly in the discharge of his professional duties; he silently and effectually (in many cases) prevents death by the improper use of remedial agents which his assistants employ.

This all being true, he is, unfortunately and necessarily, the main prop and backbone of all false theories and medical imposters. Were it not for his aid, every false theory and medical quack would sink into the most loathsome contempt, not only among the learned but the unlearned. Magic incantation, hocus-pocus, snap doctors, and infallible cancer curers would no longer impose upon the people and disgrace our noble profession; the infinitessimal doses of the homœopath would no longer delude and swindle mankind. Let the silent workings of Dr. Archæus be fully understood, and these delusions would instantaneously be exhonerated from the brain of humanity. When men are threatened with or contract disease, it is far better to leave the case with Dr. Archæus, nature's physician, than to take an improper remedy or preventive.

When the steam-doctor looms out with his heating engine and concentrated decoction of red pepper and smart grass, and makes the blood almost boil in the veins and arteries of deluded mortality, Dr. Archæus silently and quietly steps in with a copious perspiration, and thus puts out the fire and prevents the unfortunate patient from being scalded to death.

The root-doctor rides over the country, boasting of his power over disease. With huge pill-bags and cartloads of noxious vegetable plants, he embarks on his pretended mission of love.

The stomachs of his patients are filled to repletion with infusions, decoctions, and syrups, amply sufficient in themselves to produce disease, were it not for the protecting power of our antediluvian doctor. Some may really be sick, but in a few days get well, not on account of the remedies, but in spite of them. In such cases, Dr. Archæus, who cured the disease and prevented the roots and herbs from killing the patient, gets no praise, but everybody in the neighborhood is ready to bow down and worship the imposter for his matchless professional skill.

Gentlemen of the Society, we have endeavored to briefly point out, in these remarks, the absolute necessity of a thorough knowledge of the conservative power of nature in the prevention and cure of disease. If this is not accomplished, no man ss justified, or can safely administer remedies; he may have a quackish routine course of treatment in all diseases, but will often administer medicine which is incompatible with the remedial agents of nature, and thus destroy the life of his patient. This, all men of extended medical knowledge will admit; consequently, we can clearly see the force of the remark, that the difference a good doctor and no doctor at all, is not so great as the difference between a good and bad doctor. When we are sick, it is much better to take no medicine unless we get that which will aid nature in curing disease. Our country is flooded with patent and secret remedies, and millions of dollars' worth are sold every year, nearly all of which are worse than useless. They not only deplete the bodies of those who take them, but engender disease and impoverish, pecuniarily, the purchasers, and, at the same time, fill the coffers of the dishonest vendor. During the last few weeks, I examined a young man who had, in the last three months, taken twenty-seven dollars worth of patent ague syrups and pills. When he came to my office, the disease was not arrested, but the effects of the remedies he had been using were worse than the ague.

There are thousands of such instances all over the country. The only safe rule is, unless we know what the remedy is and are positively sure that it will not conflict with the curative power of nature, never to let it enter the stomach. If we can-

not get the proper medicine, and secure the services of some physician who can give it at the right time and in proper doses, take nothing, and in all probability Dr. Archæus will effect a cure; at any rate, if he fails, we will have the consolation of knowing that the patient was not killed with medicines.

All true friends of humanity, and our profession, hail with gratification the recent action of the American Medical Association, in regard to elevating the standard of medical education. By a unanimous vote of that convention, the minimum duration of college instruction shall be six calendar months, and embrace all of the branches of our science, which shall be divided into three classes or series; and no person can graduate until he has attended three courses of lectures. The classes will be, 1st. Freshman. 2d. Junior. 3d. Senior; and before matriculating for either series, the student will be required to give satisfactory evidence of a good preliminary education. At the close of each term he will be examined upon the branches he has studied, and, if found qualified, will receive a certificate to that effect. At his final examination, these certificates will stand in lieu of an examination on the Freshman and Junior series. The plan of instruction will be similar, in fact nearly the same as that pursued by all of the literary colleges in the country. When this plan for the government of our medical colleges is universally adopted, the quacks who now flood our country will be compelled either to quit the profession or apply themselves to the study of its various branches.

It is hoped that the medical men of America will urge the adoption of this new plan of instruction, and we will then know that students who pass through college will, at least, understand the *vis conservatrix*, and thus be enabled, at all times and under all circumstances, to make rational prescriptions.

The profession is under great obligations to Prof. N. S. DAVIS, for his indefatigable energy in inaugurating and practically testing this new plan of medical instruction. For the last eight years, the curriculum of the CHICAGO MEDICAL COLLEGE has embraced this new method, with long terms, thirteen professorships, and successive order of study.

These remarks, though short and disconnected, are respectfully submitted, with the hope that we will all in future study well the character and system of practice adopted by Dr. Archæus, and become his faithful assistants in the cure and prevention of disease.

ARTICLE XLV.

CASES OF INTERMITTENT AND REMITTENT FEVER, TREATED WITH CHLOROFORM, INTERNALLY.

By GEO. F. BRICKETT, M.D., of Chicago.

Case I. Mrs. C., native of Georgia; resident of St. Helena Island, S.C.; *æt.* 25; has had repeated attacks of intermittent fever for the past four years; was called to visit her July 28, 1865, and found her suffering with a decided chill, and vomiting every few moments. She informed me that she had had a chill the day before, at the same hour, 8 A.M., which lasted about fifteen minutes. I ordered one fluid drachm of chloroform, (undiluted,) to be administered at once. She soon fell into a calm slumber, of one hour and twenty-five minutes duration. She expressed herself to me, on awakening, as feeling so well, that I gave her permission to leave her room that day. I made her a visit next day, one hour after the time of the expected chill, and finding her well, I did not leave any prescription; I watched the case several days, but found no treatment required. From that date she has had no treatment, and has had no symptoms of malarial fever. On questioning her as to the effects experienced from the chloroform, she said that immediately after taking the medicine, she felt a warm sensation in the stomach, and a pecular numbness pervading her whole system, but more marked than elsewhere in her hands and feet. These sensations lasted but a few moments, and were succeeded by a calm slumber.

Case II. Lieut. L., U. S. C. T.; *æt.* 24; native of Vermont. At 2 P.M., on the 29th day of July last, was called to

see this patient, residing in the same house, and suffering from the same disease as the preceding case. The success attending the administration of the chloroform in Mrs. C.'s case, induced me to suggest the propriety of his taking the same remedy; but he believing it to be a mere matter of experiment with me, and reposing great confidence in quinine, requested that the latter medicine be administered, which was accordingly done. On the 4th of August last, while he was suffering from a severe chill, I was sent for; and he begged me to give him anything that would afford him relief; I at once administered one fluid drachm of chloroform, (undiluted,) with the satisfaction of soon seeing the chill pass off, and the patient fall into a quiet sleep. On awakening, two hours from the time the chloroform was given, a slight febrile reaction followed. At the time of his leaving the Island, (about the 1st of September,) he had had no further treatment, and no symptoms of a return of the malarial disease.

CASE III. Mrs. A.; native of Ireland; *æt.* 30; resident of St. Helena Island, S.C. Visited her on the 16th day of September last, and found a well-marked attack of intermittent fever. Having no chloroform at hand, gave her quinine; she continued taking quinine (4 grs. a day) until the 10th of October, when her supply became exhausted. On the 26th ultimo, she had another attack of the same fever. Being sent for I administered to her, while in a chill, one fluid drachm of chloroform, and ordered to be removed all means of warmth, as blankets, hot bricks, etc. The immediate effect of the remedy was to produce a quiet slumber. After two hours' sleep, she awoke, with only a slight febrile reaction. No other medicine has been given, and up to this time has had no return of the fever.

CASE IV. Mr. C. D., Acting 3d Assistant Engineer, U. S. N.; *æt.* 25; native of Maryland. Afflicted with remittent fever two days before admission into the hospital; a great deal of febrile excitement followed the chill. He was treated with quinine before admission, but not regularly. On his admission I ordered him to take 5 grs. of the sulphate of quinine, three times a day; but with little effect. On the 3d of November,

three days after his admission, one fluid drachm of chloroform was given him one hour before the expected chill. After taking it, slept one hour, and awoke greatly relieved. No further treatment was found necessary, and the officer returned to duty four days afterwards.

Case V. Mr. A. M., chief clerk to office of M. E. D. S. C.; native of New York; *æt.* 40. Called to this case, Nov. 2d, and saw him while in a chill. He informed me that he had had a slight chill the day before, at the same hour, 2 P.M.; found him enveloped in blankets, and drinking hot whiskey punch; ordered punch to be stopped, blankets to be removed, and one fluid drachm of chloroform to be administered. The same effect seen as in previous cases, viz.: slumber, and feeling, on awakening, freshened and restored. In this case, however, when I called on him next morning, I found to be present some slight dysenteric symptoms, which were readily removed by simple remedies, and he was returned to duty within a week. He has not had a chill since the chloroform was given.

Case VI. Lieut. Q., U. S. C. T.; native of Wisconsin; *æt.* 25; station on St. Helena Island. Taken sick on the 2d of November. Found him in a most severe chill; immediately gave him a fluid drachm of chloroform; on going to see him next morning, was surprised to see him busily employed at some out-door duty, superintending the construction of quarters. He expressed himself as feeling "as well as ever." I would state, that four weeks previous to this last attack, this officer was sent to an army hospital, suffering with a most severe form of malarial fever, and was, on this account, absent three weeks from his post. On his return to this Island he was again attacked, when I administered chloroform, with the above happy result. Since the last attack no medicine has been given, and he has been in the enjoyment of perfect health.

Commentary.—I would remark, that in case I., the chloroform was administered with the intention of relieving the emesis, without thinking it would be found efficacious to the removal of the disease. The happy result that then followed was, of course, entirely unexpected.

The appearance in the October number of the *American Journal*, of Dr. MERRILL'S excellent article, gave me confidence in the remedy, and I resolved to test it in every suitable case. In each of my cases, in previous attacks, it had been found necessary to administer quinine for several successive days, before any decided relief was obtained.

Without going to the extreme, of proposing chloroform as a "specific" in these diseases, I would merely call the attention of the profession to this remedy, and I would earnestly solicit further experiments with it.

I deem it just to state that my cases were all frank and open, and without any but the ordinary complications incident to these diseases.

The highly beneficial effect of the administration of chloroform, *without the subsequent use of quinia*, in the cases in which I have given, it justifies me, I think, in placing my experience before the medical public. If these few cases should be considered sufficiently important to attract the attention of the profession, and thereby induce others to experiment with this remedy, I shall consider myself amply rewarded.

ARTICLE XLVI.

INTERESTING CASE OF SUSPENSION OF GROWTH OF A FŒTUS IN UTERO, AT ABOUT THE SEVENTH MONTH OF GESTATION—ITS SUBSEQUENT DEATH AND DELIVERY AT FULL TERM.

By S. D. MERCER, M.D., of Omaha, Neb.

Mrs. A., *æt.* 32; healthy; in ordinary circumstances. Removed from Michigan, by car, to this city, in January, about the third month of pregnancy. She has had three previous normal labors, and three abortions, two of which were induced.

May 23. She worked very hard washing, although seven months and ten days advanced. The following morning she

woke up, weeping, and told her husband that her child was dead, in the womb. Previous to this, she had been perfectly well, and she continued to do some house work up to the very day of her confinement. Though naturally of a cheerful disposition, she became melancholy and uneasy.

June 10. I was called to the case. The abdomen was soft and tympanitic, and she said it was much smaller than it had been for several weeks previous to the change. The fundus of the uterus could be felt above the umbilicus. There was no tenderness; no constipation of bowels, nor any discharge from the vagina. The mouth of the womb could not be reached by an ordinary digital examination. The breast was secreting copiously. She had felt no movements of the child since May 23d, except "a slight rising of the womb." By careful auscultation I detected slight, but unmistakable, fœtal pulsation. I told them I regarded it as a case of suspension of the growth of the fœtus, depending upon the shock received by the hard day's work; that the child was certainly living then, but probably would not be much longer.

June 11. A slight discharge of water, tinged with blood, occurred, not very much, but enough to exclude all possibility of mistake.

July 7. A similar discharge occurred, and continued, in a small quantity, for two days.

July 10. Dr. MORRELL saw the case, with me. She has felt no movements, whatever, for ten days. It is now about the completion of full term. After a careful examination, Dr. M. confirmed the previous diagnosis, but no fœtal pulsation could then be detected.

July 13. She fell in labor at half-past 9 in the evening, and about 2 the following morning was delivered of a dead child.

The child was evidently one of about seven months growth. Sutures were not united, and this rendered the labor very easy. The pains came on very frequent, but were light. The waters were discharged copiously a few minutes before the labor was completed. There was considerable decomposition of the cuticle of the child, but not enough to cause any unnatural odor.

The placenta came away very easily. It was small, and partially decomposed on the surface that was attached to the womb. There was considerable fatty degeneration of the cord. The mother had a very good getting up, with no untoward symptoms, except an unusual discharge of the lochia, and a subsequent purulent discharge, which has not entirely ceased yet.

Foreign Correspondence.

London, July 25, 1867.

To the Editor of the Examiner:

The state of the medical profession in London is worthy of both praise and blame. In the way of praise, it may be said that their system of education and examinations insures that every man who enters the profession shall have at least a passable degree of knowledge. It is impossible for a perfect ignoramus to get a diploma or to become recognized as a member of the profession. In some things, however, they need reforms. The Examiners here are not the members of the faculties who give the instruction, but a Board appointed by the Government. They are venerable old fellows, the very youngest of whom is 60 years of age. As a matter of course, their examinations smack strongly of the last century, instead of being up with the times. The professors in the medical colleges complain that they have to give two sets of instructions to their pupils, one to inform them of the answers which their ancient Board will require, and the other to give them the truth. Meanwhile, the members of the Board disdain to learn anything, because they are too old, and they will not resign because their position brings them two or three thousand dollars a year, and so the evil is perpetuated without end.

The London surgeons are very deficient in their attention to hospital ventilation. I have not been able to find more than one of these buildings which was ventilated with anywhere near the completeness which we have been accustomed to attain in

Mercy Hospital. The one well ventilated institution here is Middlesex Hospital. I was much interested to observe a fact, which coincides with my experience in Chicago. In Middlesex, exactly as in Mercy Hospital, deaths from pyæmia almost never occur. That part of the mortality of surgery is practically abolished, while in other London hospitals, where ventilation is bad, pyæmia and other kindred results of foul air, cause from ten to twenty-five per cent of the deaths in surgical cases. Most of the surgeons here admit the effect of the ill-ventilation in causing pyæmia, but they are thick-headed, and inefficient in taking action upon it. I have seen them give all sorts of orders about medicine, food, drink, applications, etc., etc., "tithing mint, anise, and cummin," with great precision, but never heard one of them order the windows to be opened, though their patients were dying under their eyes for want of pure air. The fact is, some of the great London hospitals are a curse to the community, for they kill more patients by pæmia, erysipelas, and other diseases generated by close air, than all their surgeons, or anybody else, can cure by the skill of their operations.

Some valuable improvements, however, are being attempted in this country; how far they will stand the test of experience remains to be seen. The surgeons in Glasgow are at present rejoicing in the use of carbolic acid. This substance resembles creosote in its properties. In case of compound fractures and other bad wounds, lint is dipped into a strong solution of the acid and stuffed into the wound until it is full. After a day or two it is removed and a new filling put in the same way, but with a weaker solution. It is claimed that by this method *all suppuration* is prevented, as well as all decomposition of tissue or secretions, that the wounds fill rapidly with new flesh without any pus, and that pyæmia, suppurative exhaustion, and erysipelas are prevented. One of the surgeons at Guy's Hospital showed me a compound fracture extending into the knee-joint, which he treated in that way. The joint never suppurated, nor even inflamed in the least, and healed with rapidity. He stuffed a wound of a compound fracture of the leg, with

the preparation, in my presence. The next day, I visited the patient, and found that he had suffered much pain, and looked haggard and worn. I think he appeared worse than men usually do who are treated in a milder way. However, if it is a settled thing that an English hospital must not be ventilated, I think carbolic acid may be a good thing, as being, next after fresh air, the best preventive of pyæmia. It is powerfully antiseptic, and if it will prevent suppuration, it may be very valuable in cases of hectic exhaustion.

The English hospital officers seem generally to be totally ignorant of the value of adhesive-strap extention in fractures. They also are equally blind to the advantages of the single inclined plane for the fractures of the thigh, whereby the irritation of the perineal band is avoided. They generally use the old-fashioned long splint and perineal band.

There is one appendage to every hospital here which we would do well to use more frequently in America, and that is the water-bed. This, as your readers know, is a chest, or tight bedstead of metal or plank, filled with water. The top is covered with a loose rubber cloth, floating on the water, and made fast and tight at the edges. Patients who have paralysis, or other troubles, which predispose to bed-sores, are laid in these couches, where they float, as it were, in the water, and the pressure being equable on all parts, the bed-sores are prevented.

The lecture rooms in the hospitals and medical colleges here are most uncomfortable places. The seats are usually simple boards, only nine inches wide, and without any backs. The patience of the students is most praiseworthy, especially as the ecturers are often very dull in the manner of delivery.

Resections of the knee are extensively practiced, even in children. The surgeons deny that it will prevent the limb from growing, provided you do not remove the whole of the epiphysis. The practice here is very often to amputate or resect inflamed ees, in cases where a Chicago surgeon would save the limb and effect a cure. They operate in the first stages, while the disease is yet a simple inflammation, without suppuration or caries; and while, according to American experience, the knee

is perfectly curable. In justification of this practice, they say that the cure, if accomplished at all, would be excessively slow, and, therefore, the hospitals could not keep the patients long enough. They would go out and run about on their limbs, and exasperate the disease to actual caries; therefore they think it better to operate at once. The real fact is this: They treat their patients only by medicines, local applications, and rest in the foul air of the wards, and find that they die. As a general rule, they are grossly ignorant of the fact that adhesive-strap extension, and pure air will cure the patient without operation. So they take the easiest course, and cut out the joint, or cut off the limb, and thus end the matter, and frequently kill the patient.

Not long since I visited the Dreadnought Hospital. This is for seamen of all nations, and is supported by private charity. The building consists of an old 120 gun ship-of-war, moored in the Thames. It is well cared for, so far as it can be, but the surgeons complain that, being built for battle, and not for the sick, it is impossible to ventilate it, and that, in consequence, they are scourged severely with pyæmia. They add, also, the curious fact, that every patient who comes in has an attack of bronchitis. As usual, in marine hospitals, the venereal diseases are a prominent pathological element.

Apropos of venereal diseases, they are raising again the question here, whether mercurials shall be given in syphilis. Dr. DRYSDALE leads off in the negative, with a pamphlet, and has some followers.

On the whole, the impression remains on my mind that the London surgeons are, as a class, sound and able men. They are not brilliant, nor showy, but they are solid, and generally not disposed to stretch the truth, and use deceit, for the sake of exaggerating some supposed discovery.

They are, however, slow, and, in some respects, behind the times, and are culpable for not bringing to bear on their patients all the knowledge which they might easily possess.

EDMUND ANDREWS, M.D.

VENEREAL DISEASES AND PROSTITUTION UNDER THE LICENSE SYSTEM OF EUROPE.—THE LAWS, STATISTICS, AND RESULTS OF THE SYSTEM.

PARIS, August 8, 1867.

As American cities increase in population, the evil of prostitution becomes more and more manifest. The question whether it shall continue to be prohibited by law and contended against by the police, or be tolerated as unavoidable and placed under licenses and regulations, is exciting thought and perplexity in the minds of many of our wisest men.

With the view of throwing light on this difficult question, I have expended much labor in obtaining the facts and statistics of the principal cities, both of Europe and America, a work by no means easy of accomplishment, but I have succeeded so far that I think the question may be decided in the light of the facts which I have accumulated.

I am indebted to the following sources for my information, *viz.*:—The Chief of Police in Chicago, the Chief of Police in Philadelphia, the Chief of Police in New York, the Chief of Police in Liverpool, the Board of Health, New York; the Director of the Administration of Public Assistance, Paris; the officers and records of the hospitals of Chicago, Philadelphia, New York, Liverpool, London, and Paris; the police reports of London; and the writings of Parent-Duchatelet, Trébuchet and Poirat-Duval. I am under especial obligations to Capt. Kennedy, Chief of Police in New York, to the Chief of Police in Liverpool, and to the Administration of Public Assistance in Paris, for their full explanations of their departments, and for the records and statistics of their offices.

The practical question is this:—Shall we recognize prostitution as an unavoidable evil, and try to regulate and ameliorate it by a system of licenses and regulations; or shall we put it on the same footing as other crimes, and endeavor to confront it with direct opposition?

The usual arguments, on both sides, are these, *viz.*:—

1. Prostitution has always existed. It is practically impos-

sible to extinguish it by police regulations. It is better, therefore, to recognize what is unavoidable, and put it under sanitary control, with the view of limiting the spread of venereal diseases. It is further urged, that the patrons of prostitutes are not the only sufferers, but that they marry innocent parties and transmit to their wives and children the diseases which they obtained in the houses of infamy. Now, a weekly inspection of the prostitutes, and putting the diseased under treatment, may be expected to greatly diminish the proportion of such cases among them, and, consequently, to diminish the infection carried from them to innocent parties. It is further contended, that by putting these women under such a system of regulation, they can be prevented from exhibiting themselves and soliciting custom on the street; that their houses, being always under surveillance, can be rendered more orderly; and, finally, in a system of licensed houses, the police know better where to look for thieves and other malefactors whom justice demands, because they always haunt these dens.

On the other side of the question, it is replied, that the legalizing of a crime is abhorrent to the moral sense of community. If it is true that it is impossible wholly to extinguish prostitution by legal means, the same may be said of theft and murder, and all other crimes. No doubt, the thieves could be made more orderly if they were registered and licensed. It is feared also that the effect of giving prostitution a regular license and the sanction of law, would be to throw around it a sort of respectability which would increase its evil influence. It is also feared that the effect of undertaking to keep these women free from disease for the benefit of their patrons, would not be an unmixed good. The question arises, whether the fact that government, with a corps of surgeons, is steadily at work examining and removing diseased women from the houses, will not have the effect to cause the unwary to suppose these places to be safe resorts, and thus to greatly increase their patronage, so that the increased prostitution would bring up the sum total of disease in the community to as great a figure as before? If the disease is to be nearly the same and the prostitution to be

increased by the system, then the result would be an injury, beyond question.

It will be noticed that all these arguments, *pro* and *con*, are theoretical. What we want is the facts. What is the toleration system? What are its results? Are the cities where it exists more moral, or more free from venereal disease, than where it does not? The facts below are the answer.

The outlines of the system are these:—The laws announce to the prostitutes that, although their crimes are worthy of punishment, the practical difficulties of the subject have determined the authorities to tolerate prostitution under certain conditions and regulations. These conditions are usually as follows:—

1st. Every woman proposing to act as a prostitute shall, under penalty of imprisonment for refusal, register her name at the police head-quarters, in the book provided for the purpose, and shall only exercise her vocation in the apartment or house permitted by her license.

2d. She shall never walk the streets in gay dresses, nor in any manner, by look, or word, or gesture, solicit patronage in public places. In some cities they are prohibited from going to theatres, concerts, balls, or other places of public amusement; but in Paris they have immense dance-houses, where they fully revenge themselves for their restrictions on the street.

3d. She shall, at all times, keep a proper array of syringes and sponges, and, after each act of coition, shall thoroughly wash out her vagina without delay.

4th. The houses and apartments shall be subject to police inspection at all hours.

5th. The public women are divided into two classes, the *filles de chambre* and *filles de maison*. The former take a license to live by themselves in private apartments; the latter go into houses of prostitution, kept by women who have absolute authority over them, and frequently treat them with great cruelty.

6th. The *filles de chambre* shall appear at the appointed place once in two weeks, and the *filles de maison* every week, for surgical examination. Here, a staff of surgeons takes them

in hand, and examines the vagina, the rectum, and the mouth. Those found diseased are sent to a prison-hospital, where they are strictly confined until they are cured. Those not diseased, are furnished with a certificate of health, with the date of the examination. Those that fail to present themselves for examination are sought out and punished.

There are numerous other regulations for their government, but the above are the main points in most of the cities where the system exists. The next question is, what are the results? Have the cities thus regulated fewer prostitutes than others? Have they less venereal disease than others?

To answer these questions, I have, with much labor, gathered the material for the following tabular statements. I place in the first table the cities which have in operation the toleration system, with the number of registered prostitutes in each. The second table contains those which have not this system. The third shows the proportion of venereal disease in the hospitals of the non-licensing cities, which is compared with that of Paris.

Table showing the proportion of Registered Prostitutes to the whole population, in cities which adopt the License System.

Paris,	1	Prostitute to	281	Inhabitants.
Brussels,	1	"	435	"
Berlin,	1	"	754	"
Copenhagen,	1	"	564	"
Hamburg,	1	"	359	"
La Haye,	1	"	750	"
Rotterdam,	1	"	267	"
Amsterdam,	1	"	286	"
Turin,	1	"	193	"
Bordeaux,	1	"	270	"
Brest,	1	"	159	"
Lyons,	1	"	424	"
Marseilles,	1	"	286	"
Nantz,	1	"	378	"
Strasbourg,	1	"	281	"
Algiers,	1	"	102	"
Average,	1	Prostitute to	362	inhabitants.

This table, I have formed by combining the statistics found in the supplement to Parent-Duchatelet's great work, third edition, issued in 1857. The figures are given on the authority of the Chief of the Sanitary Bureau and of the Chief of the Bureau of Police, of Paris.

Table showing the proportions of Prostitutes to the whole population in cities which do not adopt the License System.

Chicago,	1 Prostitute to		230	Inhabitants.
New York and Suburbs,	1	"	518	"
London and Suburbs,	1	"	544	"
English great seaports, Liverpool, Bristol, & Plymouth,	1	"	193	"
English pleasure towns as Brighton, Bath, etc.	1	"	244	"
English towns depending on agricult'l districts, as Ipswich.	1	"	309	"
Seats of English Cotton & Linen M'f'res as Manchester, etc.,	1	"	557	"
Seats of English Woollen Manufactures, as Leeds, etc.,	1	"	654	"
Seats of English Mix'd Manufactures, as Norwich,	1	"	478	"
Seats of English Iron M'f'es, as Birmingham, Sheffield, etc.,	1	"	709	"
Glasgow,	1	"	394	"
Madrid,	1	"	270	"

Average, 1 Prostitute to 425 Inhabitants.

From which it appears that the proportion of prostitutes to the population is about 17 per cent greater in cities which adopt the license system, than in those which do not.

The great aim of the license system, however, is to diminish the scourge of venereal disease in the community at large. It

is important, therefore, to enquire what the per cent of venereal cases is in the two classes of cities. The difficulties of this investigation are very great, but I have adopted for a standard of comparison the proportion found in the civil hospitals of the various cities, excluding from the comparison the military hospitals and the prisons. This method will be as fair for one class as for the other. I have succeeded in obtaining the results in six non-licensing cities, and in one licensing city, *viz.*, Paris. In the other European cities, I have been unable to get the statistics with sufficient accuracy to entitle them to places in the tables.

Table showing the proportion of Venereal Patients to all kinds treated in civil hospitals.

Cities	Venereal Cases.	Total Cases of all Kinds.
Chicago,	580	4,147
Philadelphia,	1,127	12,292
New York,	1,833	23,314
Liverpool,	2,073	63,074*
Manchester,	3,500	75,000*
London,	3,357	31,264
Totals,	12,470	209,091

Or one venereal case to about 16¾ of all kinds.

In Paris, which has the license system, I find in the same class of hospitals, as follows:—Venereal cases, 5276; cases of all kinds, 84,267, or 1 venereal case to about 16 of all kinds. It appears, therefore, that there is a trifle more venereal disease in Paris than in the average of cities which have no license system, in spite of the weekly examination of the strumpets.

This result, which at first glance seems so surprising, is readily accounted for, if we look a little further into the practical working of the system. The weekly inspection of the strumpets, under the license system, greatly diminishes the *proportion* of disease among the strumpets themselves, but this very fact

* The figures of Manchester and Liverpool, both of venereal and of other diseases, appear very large, because they include the out-patients as well as the in-patients. In the other cities, there are no statistics of the out-patients.

acts as a first-class advertisement of the safety of their charms. Hence, their patronage is increased, as is shown by the increased numbers, and this augmented number of risks goes far to balance the diminished danger of each single copulation. In non-licensing cities, the fear and disgust of diseased strumpets acts on many minds as a strong deterring influence.

Again, it is a great mistake to suppose that the license system ever effects a complete regulation of this evil. The Chief of Police in Paris shows that in every city where the plan is attempted, there is a large class of prostitutes, called *insoumis*, or *femmes libres*, who prefer their liberty to police restrictions, and in spite of law carry on their trade clandestinely. Having no medical inspection, they are as much diseased as the prostitutes of any other country. There are no more thorough police corps in the world than those of Paris and Berlin, yet in these cities a large portion of the habitual prostitutes are neither registered nor regulated. At the prison hospital of St. Lazare, where all diseased prostitutes are sent for cure, the surgeon informed me that more than half the patients are *femmes libres*—unregistered, illegal prostitutes—captured by the police in the exercise of their profession. In Berlin, in 1857, the number of these clandestine prostitutes was reckoned as far exceeding that of the registered ones. (Parent-Duchatelet's work, vol. ii., p. 675.) If, therefore, it is true that no police has ever been able to suppress prostitution, it is equally true that the best police in the world can neither regulate it nor even register it with anything like completeness. The reasons of this failure are as follows:—

1st. The invincible determination of many of these women to preserve their liberty, and to avoid the restrictions of police regulations. This is human nature the world over, and there is no police which can compress it out of existence.

2d. The police often know to a moral certainty that a woman is living by prostitution, but if she it quiet and orderly, and if there is not clear legal proof of her actions, a seizure of her person, and a consigning of her by force to the infamy of a house of prostitution, excites a degree of popular resentment

which neither the police of Paris nor any other city are willing to brave.

3d. The same remarks are applicable to clandestine prostitutes of orderly behavior, who make a fair pretence of living by some legitimate business.

4th. There is a class of prostitutes, who are pursuing their trade under the roofs of their parents, often with their approval. If they are not disorderly, they have a sort of quasi respectability, and have still a chance to marry and reform, which they occasionally do. Practically, the magistrates, though knowing their character and probable ultimate destiny, shrink from tearing them from the parental protection, and from sundering the last tie which connects them to the possibility of a virtuous life.

5th. So far as I can ascertain, no effort is made to register the mistresses of men who keep loose women for their own exclusive use.

6th. No police pretends to supervise that indefinite mass of licentiousness which prevails *con amore* among the people, and is a matter of passion and not of pecuniary consideration.

From these various facts, it results that the European officers of justice are unable to reach more than a small portion of the sources of venereal contagion. They prevent a part of the disease of the registered prostitutes, but the great tide of clandestine licentiousness flows past them unchecked, and saturated with syphilitic infection. I think that the statistics plainly show three things:—

1. The license system never succeeds in putting anything like the whole number even of professional prostitutes under regulation, much less the semi-professional ones.

2. It does not diminish the sum total of venereal disease in community, but only the relative risk per copulation.

3. It increases the amount of public prostitution, by giving an impression of the safety of the inspected brothels, and thus affording them the very best possible advertisement. Meanwhile, it never fully frees them from infection, and the increased number keeps up the sum total of disease.

There are, however, some minor advantages gained. Thus, the prostitutes are kept, in a great measure, from open solicitations on the streets, so that cities under this plan present a greater external appearance of decency than others, even though they may be more corrupt in fact. Also, by having the brothels under constant observation, the police prevent many disorders, and when thieves or other malefactors are to be sought for, these houses are excellent man-traps, in which to catch them. This consideration, I find, always weighs strongly among police officers, in favor of the system, as might be expected from the nature of their duties.

On the whole, it does not appear that the license system is worth transporting to America in its present form. It increases the licentiousness without diminishing the sum total of venereal disease, and this fact is enough to condemn it. I think, however, that some improvement must be made in our present American plan, or rather our *no plan at all*, of managing this evil, but I think we shall be obliged to devise it ourselves, for there is no system in Europe worth copying.

There are some curious developments of human nature in Parisian licentiousness. The strumpets often have a high opinion of themselves, and are even very pious. Here are specimens of their petitions to the Prefect of Police. One commences thus:—

"*Monsieur le Prefet:*—

"Being incapable of labor, in consequence of a double hernia and other grave maladies, it is not for the gratification of my passions, nor from bad habits, that I have for ten years been enrolled in your office (as a prostitute). The testimony from all my neighborhood, Monsieur le Prefet, will prove to you that I have, to some extent, effaced by my *morality*, *my decency*, and the *regularity of my conduct*, the degredation of my condition."

An old woman, aged 82, applies in the following terms, for permission for her daughter and granddaughter to open a new house of prostitution:—

"*Monsieur le Prefet:*—

"At the age of 82 years, and the mother of a numerous family, I implore, Monsieur le Prefet, your aid and protection. You who are the father of the poor, the support of the widow and of the orphan, the stay of the afflicted, and the refuge of the unfortunate, will certainly not refuse my request. At an age so advanced, feeling myself near the time when I must render up my soul to God, and appear before my Creator, it is my duty to provide for the wants of my children, and to transmit to them my means of subsistence." Then follows her request for permission to establish a brothel, under the charge of her daughter.

Another woman petitions for leave to open a new house, promising the Prefect that she will keep in it only "the most distinguished women," who will attract men of such irreproachable character, that "tranquility, order, faithfulness, and healthfulness will be the inevitable result." Moreover, she declares that the splendor of the house and its furniture will be such, that Paris will glory in it.

Another commences her petition as follows:—

"*Monsieur le Prefet:*—

"I have been a registered woman for ten years, and have lived in my own apartments (*fille de chambre*). Feeling bound in honor to preserve intact the reputation of *honesty and delicacy* which I have acquired in my neighborhood, I am forced, in order to fulfil *sacred engagements and to pay some debts of honor*," etc., etc.

It is evident that the Parisian prostitutes preserve their full share of the power of gasconade. The depth of degradation to which these poor women are driven by their paramours is almost inconceivable. The chief-surgeon of the prison hospital of St. Lazare informed me that one woman sometimes sustains forty connections in twenty-four hours, working day and night, to use his own comparison, *comme une machine a coudre a vapeur* (like a steam sewing machine). He states, also, that the men of the Parisian hells have introduced and brought into

full vogue, the Oriental practice of copulating with these women *per anum*, instead of *per vaginam*. As an illustration, he showed me a considerable number of women with a peculiar hypertrophy of the anterior border of the anus, produced by this practice. Several of them had the circumference of the rectum studded with chancroidal ulcers, as the result. What is still more incredible, is that these depraved beasts, driven to their wit's end for new measures to excite their jaded passions, frequently copulate *per os faciis*, so that primary sores are now frequent on the lips and in the interior of the mouth. He showed me several patients thus affected, remarking with French vivacity, respecting one of them who had a large chancre on her lip, "elle a joué la clarinette avec un penis d'un homme pour instrument" (she has been playing the clarionet, with a man's penis for an instrument). As a consequence, the the examining surgeons are obliged to inspect the mouth, the vagina, and the anus, before they can give a certificate of soundness.

If, in relating the above facts, I have offended any one's delicacy, I am sorry for it. I deem it important at the present time, when many are proposing to adopt in America the French system, to state the whole truth, that we may know what style of vice flourishes under that system, and judge for ourselves whether it is smaller in its magnitude, or any less revolting in form than that which we already have in our cities.

As the present continental system is a failure, it brings back the question with perplexing emphasis, What is to be done? Chicago, like all cities where there is a large floating population, has a large share of the social evil, and it does not seem possible to rest in our present condition. The method now in use with us, is to make no effort to break up the brothels, but simply to tolerate them and use them as a means of raising money for the city treasury. For this purpose, the police are sent at irregular intervals to make a "descent" on the houses, when they bring up the inmates to pay a fine. They pay it, of course, as if it were a regular tax, and return at once to their business. It is not expected to break them up by this method.

The plan amounts to a kind of license for fees, but the money is collected in a vexatious and irregular manner that is not creditable to a good government. It seems to me that we should not proceed suddenly to a new and complex system of management, but advance step by step, as experience shows us the road. Probably it would be best in the first place to abandon this system of irregular fines, and allow the brothels a tacit toleration, not in return for fines, but in consideration of strict quietness and good order.

Another step that should be taken is, to make as complete a registry as possible both of houses and inmates. Possibly some new legislation may be required to give the police department additional powers for this purpose. Capt. Kennedy, of New York, takes an accurate census of the prostitutes once a year. The Chicago police keep a careful register of the houses, but not of the persons. It seems necessary to empower the police to make a register of the *persons*. The persons thus registered should not be molested so long as they observe good order, and do not parade themselves in public places; and the fines and imprisonments should be reserved for those who evade the registry or are guilty of violating the rules laid down for their regulation. Of course, the police should have access to the houses at all hours.

As to the diseases, it appears not worth while to tax the whole community for a costly array of hospitals and surgeons for the benefit of the patrons of the brothels. The system in Paris shows no success in extirpating syphilis from the community. For the present, at least, it would seem best to leave the disease as one of the punishments of licentiousness, and let those who have it pay their own doctors to be cured. After having advanced thus far, experience would readily show what other steps should be taken. To sum up, therefore, my proposition is this:—

1. Abandon the infliction of irregular fines.
2. Have a careful registry of brothels and prostitutes.
3. Those women who register themselves should have a tacit toleration, so long as they observe good order and keep the rules laid down to them.

4. Those who do not register, and those who violate the rules, should be visited sharply with fines and imprisonments.

5. Have the houses under close observation by the police.

EDMUND ANDREWS, M.D.

NOTE 1.—I have in my possession a copy of a report of a committee of the Harveian Society, of London, on the subject of prostitution. It contains some statistics as to the proportion of venereal patients in many English hospitals, and I hoped at first to derive great assistance in my investigations from this document. I found, however, on personal investigation at some of the hospitals mentioned, that the report contained enormous errors, not intentionally, but, apparently, from want of rigid scrutiny of its sources of information. This unfortunate fact throws suspicion upon the reliability of its whole statistics, and as I had no means of completely separating its truths from its errors, I was reluctantly obliged to omit its figures from my tables, except where I could confirm them from other sources. I understand that the same society proposes to lay its information before theInternational Congress at Paris, which is to be greatly regretted, if they do not correct it. This report was prepared with a view of making a startling impression on the public, as to the prevalence of venereal disease in England, in order to agitate for the passage of a law on the subject. With this view, the committee seems to have sought for information adapted to the purpose, and to have been deceived by incorrect statements. Wherever I was able to test the figures, I usually found them to greatly exaggerate the amount of venereal disease. The French journals are already quoting this report, and making many exclamations of horror at the *licentiousness of the English!*

NOTE 2—There is a recent act of Parliament in England, which, for the purpose of protecting the soldiers and sailors, has designated twelve towns—the chief garrison and naval towns of the kingdom—in which the police are authorized to arrest strumpets for examination, and confine the diseased until they are cured. It is claimed that this act greatly diminishes the disease in the army and navy. I have had no opportunity

to verify the statement, but I have little doubt of its truth. European soldiers and sailors, as a class, consort freely with *public* prostitutes, and much less with *clandestine* ones. They take the risk of disease without disgust or hesitation. Hence, I have no doubt that a regular inspection and treatment of the inmates of the brothels would diminish the disease among these men, even though the rest of the community was the worse for the system. There are no statistics, that I can find, showing the effect of the law on the disease among the citizens of these towns.

Selections.

CONTRIBUTIONS TO PRACTICAL SURGERY.

By JOHN METTAUER, M.D., LL.D., Prince Edward C.H., Virginia.

Intrastructural Treatment of Tumors.

Some twelve or fifteen years since, the writer treated an inteteting case of scrofula, in which the parotid, submaxillary, and sublingual glands of both sides were extensively implicated. The subject was a youth, about 9 or 10 years of age, well grown but pale, rather feeble, short-winded, and disinclined to take exercise. For a year before the case came into my hands, the disease had been slowly advancing, but had not been subjected to any regular treatment, as was stated by a senior member of the family, domestic remedies being chiefly employed. For a number of years, the writer has relied chiefly upon emetics and brisk purgatives, with restrictions on diet, and an equable state of the body temperature, in treating scrofula, more especially the form now under consideration; and a vast number of the cases yielded to such treatment, as was evidenced by the perfect cures following from it. In the case now under consideration, that plan, however, failed, after a fair trial; and the writer, believing any further attempt to medicate it through the constitution chiefly would endanger the life of the patient, determined to subject it to topical treatment by injecting into the bodies of the tumors some sorbefacient liquid; and the remedy selected was the tincture of iodine. The tincture em-

ployed was formed by dissolving half an ounce of iodine in eight ounces of alcohol, and from thirty to forty drops were injected into the tumors once in three or four days, using for the purpose a small glass syringe and a delicate trocar formed for the purpose. The central portions of the tumors were first injected, and in succession the remedy, from time to time, was applied to nearly every portion of them. Very slight pain attended and followed the operations, and the patient, comparatively a child, submitted to them readily, only complaining of a burning sensation in the tumors at the time of injecting them, and inconsiderable soreness afterwards.

This treatment was kept up for two months, at the expiration of which time the tumors had entirely disappeared, as well as the disgusting deformity caused by them, and the skin of the respective regions occupied by them appeared in all respects healthy, as well as smooth and comely. During its progress, the first perceptible changes in the condition of the tumors were, increased bulk and sensibility, and very slight exaltation of temperature. In ten days after the first injection was used, the tumors became somewhat lobulated, as well as softened under the taxis; and these changes progressively increased until they disappeared entirely.

To aid the sorbefacient operation of the intrastructural treatment, aperients were employed, and as the amelioration progressed, with the design of correcting anæmia, iodide of iron was superadded, after the tumors had become reduced more than two-thirds of their original bulk. During the treatment it could not be perceived that the constitution experienced any marked change, and certainly nothing like iodism made its appearance.

This was, unquestionably, an example of struma of well-marked character, and the subsidence of the tumors under the treatment to which they were subjected, and their final disappearance, were equally striking. There was evidently a decided constitutional aptitude for the disease, as the subject presented most of the appearances which indicate such a state, and was descended from scrofulous parents.

Some years after this case was treated, an example of fibro-adipose tumor was placed under my professional care, which, by reason of its size and situation on the neck, I determined to treat with intrastructural injections. This tumor was as large as a fist, completely filling the space between the right half of the inferior maxillary bone and corresponding clavicle, and was of soft, compressible character. Before coming into my hands,

an extensive incision had been made into it, and from the information given me by the patient, the surgeon who made the incision represented that the tumor consisted of adipose and very loose fibrous matter, the latter greatly preponderating. So large and illy defined was the tumor, that I felt unwilling to attempt its extirpation with the knife, to say nothing of my reluctance to subject the patient, a young female about 16 years old, to a painful operation, which would necessarily be followed by an extensive and deforming cicatrix should recovery take place.

This patient evidently had a strumous aptitude, but less strongly marked than in the case above referred to; and although pale and anæmic in some degree, seemed to enjoy good general health. She informed me that the tumor had existed eight months, and that its development from the first discovery of it had been quite rapid, but almost entirely painless. Even when handled roughly, it seemed entirely free from tenderness, and imparted to the taxis a feeling of soft wool.

The injection employed in this case was the tincture of iodine, and of the strength as well as after the manner of that used in the above reported case. Three injections, after intervals of ten and twelve days, were introduced, which, at the expiration of six weeks, were followed by the perfect dispersion and removal of the tumor. The injections caused sufficient irritation to render the tumor hard, quite sensitive when handled, and to cause some pain in mastication or other motions of the lower jaw; but these conditions soon disappeared, and without being attended with, or succeeded by, suppuration. Very slight constitutional disturbance followed the injections, after the first; this caused a feverish state in moderate degree, attended with headache and loss of appetite of one or two days' duration. The injection was applied to the central portions of the tumor first, and then to the peripheral, a single time. As soon as the inflammatory hardness caused by the first central injection abated, it could be perceived that there was manifest diminution in the size of the tumor, which was the case after each application of the remedy. Some months after the disappearance of the original tumor, there was a slight return, or apparent return, of it; but regarding this as, perhaps, only accidental hypertrophy of the structures lately the seat of the disease, due chiefly to morbid impressibility following the treatment, and likely to subside after a short time spontaneously, nothing was done for it; and as the patient has not returned, after promising to do so should the tumor continue, it is probable she is again well.

At the date of this paper, the writer is treating an unpromising case of scrofulous tumefaction of the female mamma by intrastructural injection of the diseased organ. The mamma is extensively diseased, the entire gland seeming to be implicated and greatly enlarged, as well as indurated, painful and sensitive to the slightest touch. Besides the disease of the mamma, numerous other local manifestations of constitutional scrofula exist, yet the general health has not materially deteriorated, notwithstanding the patient's severe suffering and loss of sleep for several months. Four injections, thus far, have only been employed—three of tincture of iodine, and one of strong, pure acetic acid. The injections were applied first to the central portions of the mamma, and next to the peripheral, after intervals of ten and fifteen days. In this case, the remedy caused considerable pain, but comparatively very little inflammation of the parts injected, and no great constitutional disturbance, except sleeplessness; and after the trial of the remedy four times, it could not be perceived that any marked change had taken place in the diseased mamma, favorable or otherwise. The case is still under treatment, and should a fortunate result follow, which it is feared is quite improbable, it will surely be reported.

The writer thinks he derived the idea of the intrastructural treatment of tumors from the employment of firm compression, the seton, and acupuncture in such cases years since, in which successful results followed, and were no doubt due to the irritation set up by those agencies in the diseased parts, of a different character from that upon which such growths depend. That injecting an abnormal growth with either of the substances which have been named tends to set up in them irritation, and essentially to change the innervation as well as their nutritive action also, will not be denied; and firm compression, the seton, and acupuncture, it seems, must act chiefly in the same manner. Besides the contra-irritant action of the tincture of iodine, however, sorbefacient influences seem to be exerted by it likewise. Even acetic acid may act in like manner, though Dr. Broadbent, of London, thinks the injection of it into cancerous tissue arrests the growth, or causes the reäbsorption of it, by a solvent power its supposed by him to exert upon the living textures. It will not be profitable to attempt an explanation of the *rationale* of the discutient action of intrastructural injections in these cases, as it would be pure speculation; but it may be assumed, without fear of contradiction, that a change of vital action of the affected parts, both of the tumors and of the supporting textures, is the result of such treatment, a change

which opposes the continuance as well as the further extension of them.

For many years, the writer has entertained the belief that the scrofulous diathesis, in whatever condition of the living organism it may consist, constitutes the true foundation of cancerous development. In every case of that disease committed to his care, and their number has been great, the disease was clearly connected with a strumous constitution more or less strongly marked. Frequently, too, scrofulous tumors of the glands have, after their long continuance, degenerated into cancer; and the removal of a cancerous parotid and mamma has as often been succeeded by phthisis, which, very probably, is scrofula of the lungs, or the phthisical form of cancer. There is no doubt that phthisis often precedes and follows the evolution of cancer in the same individual; and, *vice versa*, that the same is the case with scrofula and cancer of the mamma with respect to phthisis. Indeed, these cases seem to depend upon the same kind of morbid action; but the products differ, in some slight degree, perhaps, by reason of the higher or lower grade of phlogosis by which they are accompanied. And, if the method of treating scrofulous tumors by intrastructural injection is safe and beneficial, it would seem that it might prove equally so in cancerous growths likewise. The relationship of cancer and tubercle has been referred to by Dr. Thomas Weeden Cooke, in a work recently published in London, entitled, "Cancer, its Allies and Counterfeits;" and the writer of this paper is really gratified at finding his views on this subject, so long entertained, supported by such respectable authority. Dr. Broadbent, of St. Mary's Hospital, London, already referred to, proposes to treat cancer by injecting the diseased texture with acetic acid, and the results, in the cases thus treated, have been quite favorable. This method has also been tried in the Massachusetts General Hospital. It is exceedingly probable that it will be found as useful in the treatment of non-malignant as in scrofulous and cancerous tumors, with the exception, perhaps, of the bones, when invaded by those diseases, and the second case referred to in this paper justifies such a belief.

Retention of Urine from Weakness of the Bladder, cured by Injections of Tea.

Some years since, the writer was called, in consultation, into a neighboring State, to see a highly respectable gentleman, in a case of retention of urine. The gentleman had been laboring under the disease some eight or nine months, was about 55 or

60 years of age; previous to his attack, was of vigorous general health, of active habits, and, as is too common with wealthy persons, had lived luxuriously. The case had been skilfully treated for some months, with the usual remedies, by the gentleman's family physician—a pupil of the writer—but with only palliative results. When the early history of the case, as well as the treatment to which it had been subjected, had been explained—and this was opportunely done just as the hour had arrived for decanting the urine—a catheter was carefully introduced into the bladder by the writer, and without the slightest difficulty. The urine flowed readily, but with a feeble stream, and without any perceptible force or pain. The peculiarity of the stream, as the urine was escaping through the instrument, induced the belief that a want of contractile power of the vesical walls constituted the chief difficulty in this case, although more or less enlargement of the inferior lobe of the prostate, as well as of the gland generally, must have coëxisted also, judging from the age of the patient. An infusion of common table tea, as an injection into the bladder, suggested itself as a remedy most likely to meet the indications, while the urine was yet flowing. The tea was employed, and a single injection of four ounces of the infusion, of the ordinary strength for table use, relieved the retention, and probably it was the first time tea was ever thus used.

In this case, considerable irritation resulted; not, however, of a painful character, but rather of the nature of strangury, the desire to urinate being more urgent as well as frequent, with slight tenesmus. The irritation gradually subsided after two or three days, and the retention likewise. As evidence of the benefit derived from the tea, the writer will state that an additional fee was enclosed to him by the grateful patient, through his family physician, some weeks after the consultation. The subject of this interesting case lived some years after the tea was used, but of what disease he died, or whether the retention returned or not, he has never been informed.

Since this first trial of the tea, as a vesical injection in retention of urine, in the case just referred to, the writer has frequently employed it in the chronic diseases of the walls of the bladder, and generally with marked benefit. He has derived most frequently, however, the greatest amount of relief from it, in retention of urine, when the result chiefly of debility, relaxation, or torpor of the vesical walls, and insensibility of the mucous lining to the action of urine, with moderate enlargement of the prostate. When enlargement of the inferior lobe

of the prostate gland is the chief cause of retention of urine, little, if any, benefit need be expected from the tea, unless such enlargement be complicated with œdema of the gland, or great relaxation of the vesical walls. In cystorrhœa, of subacute character and of long standing, it is a valuable topical remedy, used after intervals of eight or ten days. Occasionally, it will be found useful in incontinence of urine dependent upon relaxation of the mucous lining of the bladder, often met with in children, and young females near the age of puberty. The injection should be of the strength of tea as commonly used at the table, and may be employed in quantities varying from two to four ounces. It should be about lukewarm when introduced, and be retained from three to ten minutes. For the purpose of introducing it, a common number six or eight gum-elastic catheter, adapted with a cork to a four-ounce caoutchouc bag, will answer very well. The vesical cavity should always be evacuated of its urine and washed out with tepid water before using the tea. Should the tea cause severe irritation of the bladder, cold or tepid injections of rice-water, elm-bark, flax-seed, or the tea of althæa, may be introduced into it from time to time until it moderates, beginning not sooner than six or eight hours after the tea is discharged. Even cold water may be employed now and then, if internal heat is complained of. Should these measures fail to relieve after a sufficient time, the bowels must be freely purged. Mild demulcent and diuretic drinks will be proper, and can be beneficially used in most cases as long as the remedial irritation continues. If violent pain follows, and the patient cannot sleep of nights, a laudanum or morphine injection of small bulk should be used.—*Boston Medical and Surgical Journal.*

April 16, 1867.

Book Notices.

Chemistry. By William Thomas Brande, D.C.L., F.R.S.L., and E. of Her Majesty's Mint; Member of the Senate of the University of London; and Honorary Professor of Chemistry in the Royal Institution of Great Britain. And, Alfred Swaine Taylor, M.D., F.R.S., Fellow of the Royal College of Physicians of London, and Prof. of Chemistry and Med. Jurisprudence in Guy's Hospital. Second American

Edition, thoroughly revised. Philadelphia: HENRY C. LEA. 1867.

This, as its title imports, is a new edition of the large and valuable work on Chemistry, by Drs. Brande and Taylor. It contains 754 closely printed, full sized, octavo pages; and embraces both inorganic and organic chemistry. It is a work of real merit, such as every student and practitioner will find useful, both for study and reference.

For sale by W. B. KEEN & Co., 148 Lake St., Chicago.

A Treatise on Human Physiology; Designed for the Use of Students and Practitioners of Medicine. By JOHN C. DALTON, M.D., Prof. of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York; Member of the New York Academy of Medicine, etc., etc., etc. Fourth Edition, revised and enlarged. With 274 Illustrations. Philadelphia: HENRY C. LEA. 1867.

This is a new edition of Dr. Dalton's well-known work on Human Physiology. It is only necessary to say that it is published in excellent style, and constitutes one of the best textbooks on physiology that we have in the English language.

For sale by S. C. GRIGGS & Co., 39 and 41 Lake St., Chicago. Price $5.25.

A Treatise on Emotional Disorders of the Sympathetic System of Nerves. By WILLIAMS MURRAY, M.D., M.R.C.P. Lond., Physician to the Dispensary and Hospital for Sick Children, and Lecturer on Physiology in the College of Medicine, Newcastle-on-Tyne. New York: A. SIMPSON & Co., 60 Duane Street. 1867.

This is a monograph of 95 octavo pages, printed on good type and paper. The work is divided into two sections. The first relates to the physiology of mental emotions and their effects on the various bodily functions; and the second to emotional diseases and their treatment. The subjects discussed are worthy of more consideration than is generally bestowed on

them, and the work before us will fully repay the practitioner for a careful perusal.

For sale by S. C. Griggs & Co., 39 and 41 Lake St., Chicago. Price $1.50.

Clinical Lectures on the Principles and Practice of Medicine. By John Hughes Bennett, M.D., F.R.S.E., Prof. of the Institutes of Medicine, and Senior-Professor of Clinical Medicine in the University of Edinburgh; etc., etc., etc. Fifth American, from the Fourth London, Edition. With 575 Illustrations on wood. New York: William Wood & Co., 61 Walker Street. 1867.

This is a new edition of the well-known work of Bennett, on Pathology and Practical Medicine. It has been thoroughly revised by the author, and 200 or 300 pages of new matter on various subjects added, making a volume of over 1000 pages. The New York publishers have issued the American edition in good style; and the general merits of the work are too well known to the profession in this country to require extended comment.

For sale by S. C. Griggs & Co., 39 and 41 Lake St., and by medical booksellers generally.

The Physician's Visiting List for 1868. Philadelphia: Lindsay & Blakiston.

This pioneer work of its kind, and still one of the most convenient for the daily use of the practioner, is already issued in form for 1868, and may be found on the tables of all our medical booksellers.

Injuries of the Eye, Orbit, and Eyelids; Their Immediate and Remote Effects. By George Lawson, F.R.C.S., Eng., Assistant-Surgeon to the Royal London Ophthalmic Hospital, Moorfields; and to the Middlesex Hospital; late Assistant-Surgeon, Rifle Brigade. With numerous Illustrations. Philadelphia: Henry C. Lea. 1867.

This is a moderate-sized octavo volume, of 408 pages, neatly

published and well illustrated with cuts. It is an American edition of a new English work, of a strictly surgical character, and on topics of much practical importance. The contents embrace the consideration of Superficial Injuries of the Eye; Injuries of the Eye from Burns, Scalds, and Chemical Agents; Penetrating Wounds of the Eye, and other Injuries of the Cornea and Iris; Traumatic Cataract; Capsular Opacities and Dislocations of the Lens; Foreign Bodies within the Eye; Traumatic Intraocular Hemorrhage and Rupture of the Globe; Gunshot Injuries of the Eye; Sympathetic Ophthalmia; Injuries of the Orbit; Injuries of the Eyelids; Abstract of the Surgical Report of the Ophthalmic Hospital, Moorfields; and Jæger's Test Types. The reader will thus see the general scope of the work. We have not yet had time to examine it sufficiently to judge of its special merits, either as to style or matter.

For sale by S. C. Griggs & Co., 39 and 41 Lake Street, Chicago.

Editorial.

Chicago Medical College.—The Ninth Annual Course of Instruction in the Chicago Medical College, will commence on Monday, Oct. 7th, 1867. The general introductory to the course will be given in the College Hall on Monday evening, at 7½ o'clock, by D. J. Nelson, M.D., Professor of Physiology and Histology. The College building has been put in good repair, and the lecture rooms re-seated in excellent style. A good class have been in attendance on the clinical instruction in Mercy Hospital all the past month; and there is a good prospect of a full class in the College.

Rush Medical College.—The opening of the regular College Term in the new building of Rush Medical College, is announced to take place on Wednesday, Oct. 2d, 1867.

Chicago Medical Society.—The regular meetings of this Society are now being held on Friday evening of each week, in the County Court-Room. The last meeting was well attended, and chiefly occupied in the discussion of the therapeutic value of subcutaneous injections. The facts elicited during the discussion seemed to show that the usual effects of any of the alkaloids could be very promptly and efficiently induced by this method, and with from twenty-five to fifty per cent less than would be required for administration by the mouth; and that pure aqueous solutions of these substances seldom induced any local inflammation in the tissues into which they were injected. But other facts seemed to show that the subcutaneous use of solutions containing any of the mineral acids in a free state, lactic acid, or lactic acid salts, often induced inflammation, and sometimes extensive ulceration or destruction of the areolar tissue.

Public Health.—The general health of this city is good; no epidemic of any kind having occurred during the past summer.

Medical Books.—The very extensive bookselling house of S. C. Griggs & Co., have laid on our table a neatly-printed catalogue of their Medical Books, with prices attached. It presents a very extensive list, embracing almost every work likely to be wanted by either student or practitioner. These catalogues are furnished to all applicants, free of expense.

Apology.—The article from Dr. Brickett, on the Use of Chloroform in the Treatment of Intermittent Fever, was received several months since, but was accidentally overlooked until the present time.

Chicago Charitable Eye and Ear Clinic—504 State St. Open daily at 12 o'clock, for the gratuitous treatment of diseases and defects of the eye and ear.

OFFICERS:

Board of Trustees.—Hon. Lyman Trumbull, President;

Hon. C. N. Holden, Wm. E. Doggett, Esq., C. T. Bowen, Esq., P. L. Yoe, Esq., Secretary and Treasurer.

Attending Surgeon.—Joseph S. Hildreth.

Dispensing Chemist.—Colin Groff.

This institution having become fully established, the Trustees are desirous of making it more generally known.

Its benefits are not limited to the city, but available to all whose circumstances entitle them to such assistance.

The Surgeon will be in attendance from 12 to 1 o'clock every day in the week, except Sunday, at the Consultation Rooms, No. 504 State Street, corner of Taylor.

The following circular has been addressed to the Faculties of all the Medical Colleges, known to exist at present, in the United States. We commend the object had in view, and the plan proposed, to the careful consideration of the whole profession.—[EDITOR.

TO MEDICAL COLLEGES:

At the Convention of Delegates from Medical Colleges, called for the purpose of revising the system of Medical College instruction in this country, and which convened in Cincinnati, May 3d, 1867, the following resolution was unanimously adopted:

"*Resolved*, That a committee of five be appointed by the President, whose duty it shall be to present the several propositions adopted by this Convention, to the Trustees and Faculties of all the Medical Colleges in this country, and solicit their definite action thereon, *with a view to the early and simultaneous practical adoption* of the same throughout the whole country. And that the same committee be authorized to call another convention whenever deemed advisable."

The undersigned Committee, appointed for the purpose of carrying into effect the instructions contained in the foregoing resolution, respectfully invite the attention of the Trustees and Faculty of each duly organized Medical College in the United States, to the five following propositions, which, after mature deliberation, were adopted by the said Convention with entire unanimity:—

"*Resolved*, 1st. That every student applying for matriculation in a Medical College shall be required to show, either by satisfactory certificate, or by direct examination by a committee of the Faculty, that he possesses a knowledge of the common English branches of education, including the first series of mathematics, the elements of the natural sciences, and a sufficient knowledge of Latin and Greek to understand the technical terms of the profession; and that the certificate presented, or the result of the examination thus required, be regularly filed as a part of the records of each Medical College.

"2d. That every medical student shall be required to study four full years, including three regular annual courses of medical college instruction, before being admitted to an examination for the degree of Doctor of Medicine.

"3d. That the minimum duration of a regular annual lecture term, or course of medical college instruction, shall be six calendar months.

"4th. That every Medical College shall embrace in its Curriculum the following branches, to be taught by not less than nine Professors, viz.:—

"Descriptive Anatomy, including dissections; Physiology and Histology; Inorganic Chemistry; Materia Medica; Organic Chemistry and Toxicology; General Pathology, Therapeutics, Pathological Anatomy, and Public Hygiene; Surgical Anatomy and operations of Surgery; Medical Jurisprudence and Medical Ethics; Practice of Medicine; Practice of Surgery; Obstetrics, and Diseases of Women and Children; Clinical Medicine, and Clinical Surgery; and that these several branches shall be divided into three groups or series, corresponding with the three courses of Medical College instruction required.

"The first, or *Freshmen series*, shall embrace Descriptive Anatomy and Practical Dissections; Physiology and Histology; Inorganic Chemistry, and Materia Medica. To these the attention of the student shall be mainly restricted during his first course of Medical College instruction, and in these he shall submit to a thorough examination by the proper members of the Faculty, at its close, and receive a certificate indicating the degree of his progress.

"The second, or *Junior series*, shall embrace Organic Chemistry and Toxicology; General Pathology, Pathological Anatomy, Therapeutics, and Public Hygiene; Surgical Anatomy and operations of Surgery; Medical Jurisprudence and Medical Ethics. To these the attention of the medical student shall be directed during his second course of Medical College instruction, and in them he shall be examined at the close of his second course, in the same manner as after the first.

"The third, or *Senior series*, shall embrace Practical Medicine; Practical Surgery; Obstetrics and Diseases peculiar to Women and Children; with Clinical Medicine and Clinical Surgery in a hospital. These shall occupy the attention of the student during his third course of college instruction, and at its close he shall be eligible to a general examination for the degree of Doctor of Medicine.

"The instruction in the three series is to be given simultaneously, and to continue throughout the whole of each annual college term; each student attending the lectures on such branches as belong to his period of progress in study, in the same manner as the sophomore, junior, and senior classes, each pursue their studies simultaneously throughout the Collegiate year in all our Literary Colleges.

"5th. That every Medical College should immediately adopt some effectual method of ascertaining the actual attendance of students, upon its lectures and other exercises, and at the close of each session, or of the attendance of the student, a certificate specifying the time and the courses of instruction actually attended, should be given, and such certificate *only* should be received by other colleges as evidence of such attendance."

It will be seen that these propositions are designed to introduce into the system of Medical College instruction in this country, *four changes* of great practical importance, namely:—1st. A positive standard of preliminary education. 2d. A longer time in which to acquire a knowledge of the various branches of Medical Science and practice. 3d. A systematic and successive order of studies for the student. 4th. A certain amount of direct clinical instruction in a public Hospital as a part of the senior course. The desirableness of these changes is too apparent to require either argument or illustration. The plan for accomplishing them, adopted by the convention, as expressed in the foregoing propositions, is simple and easy of execution, provided the several colleges will act in concert.

It requires each college to obtain and place on record sufficient evidence that

every student admitted to matriculation possesses a certain amount of preliminary education. It requires *attendance* and *pay* for three annual courses of college instruction, as a condition for graduation; and arranges the whole curriculum of the college into three corresponding series of branches, so that each student can limit his attention to one series each year, thereby laying a foundation and building on it a superstructure in their natural order.

It contemplates such an increase in the number of members of each college Faculty, that four lectures per day can be given to each of the three *classes* in attendance, throughout the whole college term of six months. This would afford a very full course of instruction in each of the three *series* of *branches*, and yet give to the members of each class time fully to digest the instruction received. This would make it necessary during a part of each day that lectures should be given at the same hours to different classes. But as all Medical Colleges contain two and some of them three Lecture rooms, this would be attended by no inconvenience to the Faculty or students. The only valid objection which has been suggested by those connected with the Medical Colleges, is, that the increase in the number of each College Faculty required by the proposed plan, would necessitate a corresponding greater division of the income of each college, and thereby seriously reduce the amount received by any one member. If it is remembered, however, that while the plan requires a moderate addition to the number of members in the Faculties of most of the colleges, it also requires each student to attend and *pay full fees* for three courses of instruction instead of two, it will be seen that the revenues of each college derived from Lecture fees, will be increased in full proportion to the increase of the Faculty. As most of the colleges have allowed each member of the Faculty to sell his ticket to the class and retain the proceeds as his individual compensation it has been thought, that the proposed division of the students, attending any given college, into three distinct classes, and assigning to each a distinct series of branches, would limit the sale of the tickets of any one professor to the special class receiving instruction in his department; and consequently would restrict his income in proportion to the restricted number of tickets sold.

This is simply a misapprehension. The Convention took no action regarding the rate of lecture fees in any of the colleges; but the plan proposed, was founded on the expectation that each student would pay the same aggregate fees annually, as under the old plan. For instance, a student attending his first course and taking out the four tickets of the Freshmen series, would pay the same amount for the four that he now pays for the seven or eight that cover the curriculum in most of the colleges at this time. Hence, although each member of the Faculty would sell a smaller number of tickets, the income from them would be nearly the same. Or each college could have all lecture fees, from the several divisions of the class, paid to a common treasurer, and each member of the Faculty allowed to draw on such treasurer for his proportion of the same.

The 4th section or proposition adopted by the Convention, was not designed to fix the titles to professorships in the colleges, but simply to designate what

was deemed necessary to constitute a proper Medical College Curriculum, and to determine what part of that Curriculum should be included in each of the *three series* of studies. Uniformity among the colleges in regard to this division into series, is very desirable in order to enable students, if they choose, to attend one series of studies in one college and another series in another without confusion.

To obviate embarrassment in making the change from the present system of college instruction to the one proposed, we would suggest that all students who should have so nearly completed their period of study at the time fixed for making the change, that an attendance on a single additional course of Lectures would render them eligible to graduation should be allowed to complete their course by attending the *senior* department under the new arrangement; while all who are in the first half of their period of study, should be subject to the new arrangement in full.

That the interests of medical science, the honor of the profession, and the welfare of the people, urgently require important improvements in our system of medical education and medical college instruction, is apparent to all. The public sentiment of the profession as expressed through the National, State, and local Societies, and through the leading medical periodicals, cordially sanctions the plan here proposed. We therefore respectfully ask you to give it a full consideration, and return to the Chairman of the undersigned Committee answers to the following questions:

1st. Do your Faculty, together with the governing authority of your College, approve of the several propositions as a whole?

2d. If you do not approve of the plan of revision as a whole, what changes would you suggest?

3d. If you approve of the plan as a whole, or of all its essential features, will your College be ready to adopt it practically, and issue your Annual Announcement for the College term of 1868–9, in accordance therewith; provided all the principal Medical Colleges in this country (or at least those in the cities of Boston, New York, Philadelphia, Baltimore, Richmond, Charleston, New Orleans, Louisville, Cincinnati, St. Louis, Chicago, Buffalo, and Albany,) will agree to do the same at the same time?

The great desideratum is to secure both harmony and concert of action on the part of the Medical Colleges, in the adoption of such measures as will at once place the system of medical education in this country on such a basis as the extent of the science and the responsibilities of its practical application in the prevention and treatment of diseases, require.

N. S. DAVIS,
S. D. GROSS,
GEO. C. BLACKMAN,
F. DONALDSON,
} Committee.

Chicago, August 1, 1867.

PRIZES OFFERED BY THE CONN. MEDICAL SOCIETY FOR 1868. —The undersigned, a Committe of the Connecticut Medica.

Society, offer, in behalf of said Society, the following Prizes, to be awarded in May, 1868, viz: They renew the offer of the Jewett Prize of Two Hundred Dollars, for the best essay on the question, "*By what hygienic means may the health of armies be best preserved?*"* They also offer the Russell Prize of Two Hundred Dollars, for the best essay on the subject "*The Therapeutic Uses and Abuses of Quinine and its Salts.*"

The offer of both these prizes is extended to all physicians and surgeons of the United States, and the British Provinces of North America. In awarding the Prizes, the Committee will feel authorized to regard the literary merits, as well as the professional and scientific value of the papers submitted; and should none be received which they think worthy of such generous prizes, they may take the liberty of witholding their decision until the offer can be renewed.

Competitors will send their essays, free of expense, to one of the Committee, on or before the first of March, 1868, each having on it a motto or device, which shall also be written or placed on a sealed envelope, inclosing the writer's name and address. The unsuccessful essays will remain with that member of the Committee in whose hands they were originally placed, subject to the order of their respective authors.

[It has been stated, that a degree of health which is unusual prevailed in the Union armies during the late war, and the mortallity from disease was much below the average in the great military campaigns of Europe. Is there truth in the statement? If true, to what extent is it so, and why is it? What are the facts? What is the explanation? These are transcendently important questions, to which the Committee can find no answer in the essays which have been offered for the Jewett prize. They would not presume to direct the inquiries of competitors, but in this way, (parenthetically, as it were,) suggest a topic for consideration.]

BENJAMIN H. CATLIN, M.D., of West Meriden,
LEONARD J. SANFORD, M.D., of New Haven,
HENRY BRONSON, M.D., of New Haven,
MELANCTHON STORRS, M.D., of Hartford,
CHARLES L. IVES, M.D., of New Haven,
} *Committee.*

* Those who forwarded essays on this question last year, are requested to let them remain until a decision is made, or recall them, through a friend, for alteration.

New Mode of Treating Fracture of Lower Jaw.—Dr. Benj. H. Riggs, of Selma, Ala., reports in the *Southern Journal of Medical Sciences* for May, 1867, a case of compound fracture of the inferior maxilla, occurring in an adult, in the treatment of which he claims that he made use of a new method.

The point of fracture was "immediately to the right of the symphysis, and through the socket of the right central incisor, the outer half of that tooth being exposed to view; the right fragment was very much drawn inwards; the gum was freely severed at the seat of fracture." A pasteboard splint and Barton's bandage was first applied, and the patient put upon his good behavior. This method proved unsuccessful, for the patient took the liberty of neglecting the doctor's instructions as to rest and method of eating, so that at the end of six weeks there was found a fistula under the chin, but no evidence of an attempt at union of the bones. Dr. Riggs then determined to use some mechanical appliance within the mouth, and obtained the assistance of Dr. S. G. Todd, a dentist, who took an impression in soft wax, formed from it a plaster cast, and upon this constructed a silver band, which was "made to fit every inequality of the teeth, completely encircling the first nine; it was not quite as wide as the teeth were long, and did not interfere with the closure of the mouth. An intercommunicating portion extended from the front arm of the band to the posterior, at the seat of fracture." This appliance was found to maintain exact coaptation of the bones. A tin fracture-box, which was soon discarded as cumbersome and unnecessary, and a two-tailed bandage, completed the apparatus. Under this treatment the fistula closed at once, and the case seemed to progress favorably for some weeks; but at the end of that time it was found necessary to remove the right central incisor, which, being at the seat of fracture, had acted as a foreign body. It was then seen that there had been no attempt at bone formation. The band was now shortened and readjusted, after which the fistula again closed, and the case progressed favorably to the end of the treatment. At the end of six weeks from the extraction of the tooth, the apparatus was removed, and the patient discharged, although on account of the anæmic condition of his system, osseous union was not yet perfect.

Sulphite of Soda in the Treatment of Erysipelas.—Dr. Addinell Hewson says, he has obtained results from the use of sulphite of soda in the local treatment of erysipelas, which have been to him both interesting and surprising. In extensive trial of the remedy, both in hospital and private practice, he has never seen it fail, when thoroughly applied before the deep planes of cellular tissue had been invaded by the disease. Before such parts had become affected, a solution of ten grains of this salt to the ounce of water, when thoroughly applied on

lint all over the surface affected, and to a considerable distance beyond it, and covered with oiled silk to prevent the evaporation of the solution, had not only produced a decided bleaching effect on the discolored surface in every such instance, in the first twenty-four hours of its use, but had invariably destroyed all traces of the disease in forty-eight hours from its first application. The effect was the same, whether the application was made in the traumatic or idiopathic form of the disease. He has thus cured twenty-seven cases, seven of which were of idiopathic erysipelas. Even in the cases where the deep planes of cellular tissue were involved, as well as the surface, the disease on the surface was always apparently affected by the application. It was most positively bleached in all instances, and in many was evidently destroyed, within the period above stated, even while that in the deeper part proceeded to suppuration.—*Trans. Col. Phys. Philadelphia.*

Phthisis in Barbadoes.—Phthisis is a disease that has been supposed hardly to exist in the tropics, but observation of late years seem to say that such is far from being the case. In the island of Barbadoes it is much more common than formerly, and quite so amongst the negroes. Since the abolition of slavery, the diet of the blacks has probably been less nutritious than when they were not obliged to provide for themselves, consisting now chiefly of Indian meal, sweet potatoes, and flying fish—which last delicious fish is taken in immense numbers around the island; and to this cause the increase of disease seems to be attributed, though the general appearance of the blacks struck me as quite healthy. And I would remark that the number of mulattoes, in whom we generally find a greater tendency to tubercular affections than in the pure negroes, appeared to me to be small. I saw several cases of phthisis at the hospital, and was told that when patients come to the island with this disease no marked benefit is experienced, though the climate, if a tropical one could have any effect, seems to be all that could be desired. Scrofulous glands and disease of the joints are also common, but tubercular meningitis is very rare.—Dr. J. B. S. Jackson, *Boston Medical and Surgical Journal.*

The French students pay for diplomas in medicine and surgery, $145; in natural sciences and mathematics, $100; and in chemistry and pharmacy, $60. The fees are much heavier in Italy, and generally less in Germany.

MORTALITY REPORT FOR THE MONTH OF AUGUST:—

Dr. Rauch, the Sanitary Superintendent, read the following Sanitary report for the month of August just closed:—

CAUSES OF DEATH.

Accidents,	18	Gastritis,	3
Abscess, back of neck,	1	Gastro-Enteritis,	1
Apoplexy,	3	Heart Disease,	7
Atrophy,	2	Hemipligia,	1
Birth, premature	28	Hernia, inguinal	1
" still	13	Hernia, estrangulated	1
Brain Disease,	1	Hydrocephalus,	10
" Congestion of,	5	Hypertrophy of heart,	2
" Inflammation of,	5	Inanition,	3
Bright's Disease,	1	Inflammation, kidneys	1
Bronchitis,	2	Inflammation, tonsils	1
Bowels, inflammation of	3	Liver, cirrhosis of	1
" obstruction of	1	Liver, inflammation of	1
Cancer of face,	1	Lungs, congestion of	2
" " intestines,	1	Laryngetis,	1
" " liver,	1	Measles,	17
" " stomach,	1	Meningitis,	7
" " uterus,	1	Meningitis, Cerebro-Spinal,	4
Cirrhosis,	1	Meningitis, Tubercular	2
Chlorosis,	1	Nephritis,	1
Cerebritis,	1	Old Age,	4
Cholera-Morbus,	7	Ovarian, disease of	1
Cholera Infantum,	212	Paralysis,	1
Convulsions,	28	Peritonitis,	1
Debility,	20	Phlegmasia dolens,	1
Delirium Tremens,	2	Phthisis Pulmonalis,	23
Diarrhœa,	45	Pneumonia,	4
Diphtheria,	4	Purpura,	1
Dropsy, general	7	Rheumatism cardiac,	1
Dropsy, brain	2	Rheumatic gout,	1
Dropsy, chest	1	Scrofula,	2
Dropsy, heart	1	Small-Pox,	11
Dysentery,	24	Stomach, congestion of	1
Enteritis,	10	Suicide,	2
Entero-colitis,	2	Sunstroke,	4
Fever, Bilious	1	Softening of Spinal cord,	1
Fever, Congestive	3	Tabes Mesenterica,	29
Fever, Putrid	1	Tetaurus,	1
Fever, Puerperal,	4	Teething,	40
Fever, Scarlet,	8	Ulceration of Bowels,	1
Fever, Typhoid,	13	Whooping-Cough,	6
Fever, Typhus,	5	Unknown,	3
Total,			697

NATIVITIES.

Chicago,	409	Germany,	68	Prussia,	3
Other parts U. S.,	87	Holstein,	1	Denmark,	2
Norway,	21	Scotland,	3	France,	2
Ireland,	39	England,	11	Nova Scotia,	1
Holland,	7	Sweden,	6	Unknown,	8
Bohemia,	18	Canada,	6		
Total,					697

MARRIED AND SINGLE.

The following table gives the relative number of deceased, married and single:—

Single, ----------612 | Married,---------- 85 | Total,----------697

Ages of the Deceased.—Under 5 years, 497; over 5 and under 10 years, 18; over 10 and under 20, 23; over 20 and under 30, 33; over 30 and under 40, 27; over 40 and under 50, 28; over 50 and under 60, 13; over 60 and under 70, 14; over 70 and under 80, 9; over 80 and under 90, 4; still born and premature, 26; unknown, 5. Total, 697.

DEATHS IN EACH WARD.

The following table gives the average of deaths in each ward, on the basis of the population of 1866:

Ward.	Mortality.	Pop. in 1866.	One death in		Ward.	Mortality.	Pop. in 1866.	One death in	
1---	8	9,648	1,206		13---	36	8,188	227	4-9
2---	24	12,985	541	1-24	14---	44	12,108	275	2-11
3---	37	15,738	422	24-37	15---	57	15,716	275	41-57
4---	33	10,884	329	27-33	16---	38	14,912	392	8-19
5---	44	9,410	213	33-44	Unknown,	11			
6---	60	10,580	176	26-60	Lake View,	2			
7---	90	18,755	208	35-90	Lake Mich.,	1			
8---	46	10,429	226	33-46	Mercy hos.,	1			
9---	34	13,940	381	6-34	County hos.,	14			
10---	21	11,416	543	13-21	Orph. asy.,	4			
11---	47	12,924	275						
12---	45	12,695	282	1-9	Total,	697			

Dr. Rauch further stated that the health of the city at this present time, was very good, though the number of deaths had somewhat increased during the last few days, when compared with the earlier part of the week.

Sloughing Produced by Local Anæsthesia.—The *London Lancet*, says: "We examined, a few days since, in the Middlesex Hospital, a young woman whose case is of no little importance in reference to the question of local as against general anæsthesia for operations. Mr. Lawson had diagnosed the existence of an abscess behind the patient's breast, and as the pus was very deep, (under the pectoral muscle indeed) the refrigerator was used, paraffine ether being employed. Congelation was rapidly produced, and kept up for a few minutes. The result has been, that a portion of skin, about an inch by three-quarters of an inch, over the upper part of the breast, has sloughed, and its healing will necessarily be attended by an unseemly scar. The patient is a maid-servant; were she unfortunately a lady, the undress of the modern ball-room would be impracticable without revealing such a blemish as might seriously damage her value in the matrimonial market. The case is worth remembering when exposed parts of the body are to be operated upon.

Statistics of Cholera in Italy.—Some statistics of the cholera recently published in Italy, show that, during the eight months or more of its prevalence in united Italy, there were 32,577 persons attacked, of whom 12,901 died. In all cases the majority of persons were men, and the proportion of married persons over the unmarried is very decided. The poor who were attacked, numbered 15,467; but among the better classes, the ratio of mortality was far higher, in fact, 60 per cent. But few young children were attacked, and the susceptibility of the disease was most evident between the ages of twenty and thirty-five.

Curare in Epilepsy.—Dr. Benedikt informs the Vienna Medical Society that the subcutaneous injection of curare has a favorable influence over epileptic diseases. A man, 20 years of age, had had epilepsy since he was nine years old. During five months he was subjected to curare injections in hospital. For the last fifteen months he has had no return of the fits. Four similar cases, equally successful, were related by Dr. Benedikt. The injections were used three times a week, under the skin in the neck, an eighth of a grain being used at each operation.—*British Medical Journal.*

Money Receipts to Sept. 25th.—Drs. Wm. Martin, Chicago, $1.00; N. R. Weede, Young America, Ill., 3.00; A. C. Buffum, Honolulu, Sandwich Islands, 5.00; B. See, Marshall, Ill., 3.00; F. R. Payne, Marshall, Ill., 3.00.

To Physicians.—By request, Prof. Horatio R. Storer will deliver his second private course of twelve Lectures upon the Treatment of the Surgical Diseases of Women, during the first fortnight of December, at his rooms in Boston. Fee $50, and Diploma required to be shown.

Certificates of attendance upon the course just completed have been issued to the following gentlemen: Dr. C. M. Carleton, Norwich, Ct.; Daniel Mann, Pelham, N.H.; G. E. Bullard, Blackstone, Mass.; J. A. McDonough, Boston, Mass.; M. C. Talbott, Warren, Pa.; H. Gerould, Erie, Pa.; E. F. Upham, West Randolph, Vt.; W. L. Wells, Howall, Mich.; and W. A. I. Case, Hamilton, C.W.

Hotel Pelham, Boston, 1st July, 1867.

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ARTICLE XLVII.

HOW FAR DO THE FACTS ACCOMPANYING THE PREVALENCE OF EPIDEMIC CHOLERA IN CHICAGO, DURING THE SUMMER AND AUTUMN OF 1866, THROW LIGHT ON THE ETIOLOGY OF THAT DISEASE? *Presented to the Section on Meteorology, Medical Topography, and Epidemic Diseases of the American Medical Association, May, 1867.*

By N. S. DAVIS, M.D., Professor of Principles and Practice of Medicine, and of Clinical Medicine, Chicago, Ill.

At the meeting of the American Medical Association, in May, 1866, I read a brief paper before the Section on Meteorology, Topography, and Epidemics, in which attention was called to the alleged fact, that all the diseases usually regarded as *epidemic* could be arranged into two classes. The first class embraces all such as arise directly from a specific virus or animal poison, capable of being reproduced in the living animal body; and, consequently capable of being propagated from individual to individual in any climate, at any season of the year, and without regard to public or individual hygienic conditions. The chief members of this class are, Variola, Varicella, Rubeola, and Scarlatina. The second class was represented as embracing such diseases as appear in an epidemic form only at irregular intervals, prevail only for a limited period of time,

and at any given prevalence appear incapable of propagation beyond certain geographical limits or sanitary conditions. Influenza, diphtheria, spotted fever, erysipelas, cholera, etc., were enumerated as examples of this class. In specifying the essential differences between these two classes of epidemics, in that paper, it was stated that all the members of the second class had their analogues or typical forms among the ordinary sporadic and endemic diseases of every season. It was said that epidemic "influenza has its type in the severer cases of coryza and catarrh; cholera, in the cholera-morbus of every returning summer; diphtheria, in the folicular and erythematic inflammations of the fauces; and erysipelas, in the sporadic and traumatic cases of common occurrence." Assuming such a relation to exist between these sporadic and epidemic forms of disease, it was asked whether it would not be more in accordance with the acknowledged rules of inductive reasoning, as well as more likely to lead to important and reliable results, to look for the essential causes of this class of epidemics among those circumstances and influences that are already recognized as influencing their sporadic types?

For the purpose of illustrating further, both the connection between certain sporadic and epidemic diseases, and the local causes influencing their development, I have prepared the following summary of facts observed during the year 1866. The prevalence of cholera in Europe, during the summer of 1865, led to a general apprehension that the same disease would prevail more or less in our country during the succeeding year. Influenced by a desire to gain possession of every fact that would throw light on the etiology of that disease, more especially as regarded local influences, I commenced early in the year 1866 to make an almost daily record of the atmospheric and local conditions in the City of Chicago, in connection with the prevalence and special character of diseases, and continued such record throughout the year. To enable others to appreciate the bearing of certain facts, more especially in regard to the direction and amount of winds or atmospheric currents, it should be stated that the city occupies a very level prairie on the west-

ern border of Lake Michigan. The soil is an alluvial mixture of clay, sand, and the products of vegetable decay, and is closely underlaid by a stratum of tenacious blue clay, impervious to the surface water. A wide expanse of similar low, wet prairie skirts the City on the west and south, while the open waters of Lake Michigan extend forty miles eastward, and several hundred miles north and north-east. The streets of the City are broad, straight, and cross each other at right angles, thereby affording great facilities for ventilation by atmospheric currents. Only a very few families live in basements or apartments below the surface of the ground. Winds from the south and west, passing over a wide expanse of alluvial prairie, are very cold in winter; but warm, relaxing, and more or less impregnated with malaria, or the products of vegetable decomposition, during the summer. Winds from the north and east, passing over a wide expanse of pure water, are less intensely cold in winter, but always cool, bracing, and often even chilly in summer. The general level condition of the surface, both of the City and the surrounding country, with the impervious stratum of clay subsoil, causes much surface water to be retained until returned to the atmosphere by evaporation. Consequently, dampness is a marked feature of our climate. During the year 1865, the inhabitants of Chicago enjoyed a greater immunity from fatal sickness than usual, the ratio of mortality being slightly below the average for the preceding five years. The only prominent meteorological peculiarity of that year was an unusually cold and wet summer, with high winds. The gross mortality of the City, during 1865, was 3633, the population being 187,000, gave the ratio of one death to 50, or 20 in every 1000. Of the 3633 deaths, in 1865, 612 were attributed to diseases of the bowels, namely: from inflammation of the bowels 76, dysentery 85, cholera-morbus 51, diarrhœa in adults 83, diarrhœa in children under five years of age 317. From the first of January to the first of June, 1866, the same general exemption from unusual sickness and mortality continued, as during the preceding year. The gross mortality was: for January 293, February 260, March 254, April 278, and May

275. During the months of April and May, the atmosphere was comparatively cool, dry, with abundant free electricity, and a prevalence of north, north-east, and north-west winds. The only noteable exception to these general conditions, was on the 19th of May, when a direct south wind brought a current of hot, damp atmosphere, extremely oppressive, but which was followed by showers in the evening, and a cool north wind in the morning. The wind continued from the north and north-west, with a cool, dry atmosphere, and an average electrical and ozonic indication until the night of the 7th of June. The morning of the 8th was ushered in with wind from the south, and a hot, sultry, and oppresive atmosphere all day. The atmosphere was damp, and deficient in both electricity and ozone. Slight showers fell during the evening, and before the morning of the 9th, the wind changed to the west. The 9th and 10th were cool, dry, and pleasant, with winds from the north and north-east. On the morning of the 11th, the wind again changed to the south, and before mid-day, the atmosphere was more hot and oppressive than on the 8th. It continued so throughout the 11th and 12th, with showers on the evening of both days. On the 13th, the wind varied from the south to the west, with less heat, but returned to the south on the morning of the 14th, with increased heat, and copious showers of rain from the south-west in the afternoon.

During these four days the atmosphere was damp, hot, and below the ordinary indications of free electricity and ozone. The sensible effect upon the healthy animal economy, was that of relaxation, lassitude, and indisposition to exertion. In popular language it is expressed in the words, "sultry and oppressive." From the morning of the fifteenth to the twentieth, the wind was continuously from the north and the north-east. The atmosphere was cool, clear, dry, and gave indications of free electricity and ozone equal to the average. On the twentieth, the wind again changed to the south, and remained south and south-west until the twenty-seventh. During these days the mornings were almost uniformly cool and clear, but the afternoons hot and oppressive. They were dry, except the afternoon

of the twenty-first, when there were showers of rain with lightning. During the last three days of the month, the atmosphere was cool, for the most part clear and dry, with winds from the north and north-east.

Comparing these dates with my notes on the daily attacks of disease, it appears that the first notable increase of bowel-affections took place during the eleventh and twelfth, when the atmosphere was hot, damp, and oppressive. During these two days, a large number of cases of diarrhœa, cholera-morbus, and dysentery dated their origin. Far the larger number of cases occurred in children under three years of age. It was during the night of the eleventh that the first two cases, presenting all the ordinary symptoms of epidemic cholera, were observed.

One was a woman residing at 212 Kankakee Avenue, in the extreme south-eastern part of the city, while the other was a man on West Harrison Street, near the western limits of the City. (See map.) From the fourteenth to the twentieth, but very few new cases of either diarrhœa or cholera-morbus occurred. But from the twenty-first to the twenty-seventh, these diseases again increased so rapidly, that my notes on the twenty-sixth and twenty-seventh show one-half of the whole number of patients prescribed for to have had either diarrhœa, cholera-morbus, or dysentery. The total mortality in June was 319, being an increase of 45 over the preceding month, and of 126 over the corresponding month of 1865.

During the first seven days of July, the winds were from the south and south-west; the temperature high; more or less rain every day, except the fourth and fifth; atmosphere excessively damp and deficient in electricity, inducing in the animal system a feeling of languor and oppression. The only change during these seven days, was on the evening of the second, when the wind suddenly changed to the north-west, bringing a cooler atmosphere during the night, but which was again reversed in the morning. On the eighth, the wind had changed to the north-east, and the atmosphere continued chilly and damp through the day. Ninth, wind from the north, and the atmosphere cool and clear, but less damp. Tenth and eleventh, wind

south-east, atmosphere warm, but clear, dry, and pleasant. From the morning of the twelfth to the evening of the seventeenth, the wind was from the south and south-west; the atmosphere continuously hot, damp, and deficient in free electricity. About 1 o'clock, P.M., of the seventeenth, the wind suddenly changed to the north-east, bringing a cool, damp atmosphere, and a slight sprinkle of rain, and in the evening, copious showers, with thunder and lightning. During the eighteenth, nineteenth, and twentieth, the wind continued north and north-east, with a cool, clear, but moderately damp atmosphere. During the evening of the twentieth, it became cloudy, with the wind more to the south. Twenty-first, wind south, cloudy, hot, and oppressive, with copious showers in the evening, followed by a cool north-east wind, and a fine display of atmospheric electricity. At midnight, the wind again changed to the south, and the morning of the twenty-second was hot, rainy, and oppressive. The twenty-third, twenty-fourth, and twenty-fifth, were only moderately warm, and the wind mostly east and north-east, with showers every day or night, keeping the air saturated with dampness. On the twenty-sixth, twenty-seventh, and twenty-eighth, the winds were continuously from the south; the atmosphere filled with clouds, mist, and sometimes rain, and very hot. During the night of the twenty-eighth, the wind changed to the north, and the twenty-ninth, thirtieth, and thirty-first, were cool, clear, and pleasant.

It will thus be seen that the most prominent meteorological characteristics of July were, high temperature; frequent rains; excessive dampness; south and south-west winds, with deficient free atmospheric electricity. The principal exceptions to this rule were from the seventeenth to the twenty-first, and from the twenty-ninth to the thirty-first. The average temperature of the month was here, as in most other sections of our country, above the average of the preceding ten years.

In regard to local sanitary conditions, it is proper to state that, although the scavenger system adopted by the City authorities had served to keep the streets and alleys of the central part of the City some cleaner than in former years, yet up to

the last day of July, there were extensive sections of the City, thickly covered with dwellings, in which not even a street-gutter had been cleaned out, and both branches of the Chicago river were in their usually offensive condition. As might have been expected, from the local and atmospheric conditions just detailed, the prevalence of intestinal diseases in the City, during the month of July, was much above the average of the preceding three or four years.

It was stated that from the twentieth to the twenty-seventh of June, there was a prevalence of south winds, with a hot, damp, and oppressive atmosphere, during which, "serous diarrhœa and dysentery increased rapidly among young children, and to some extent among adults." The cool invigorating atmosphere of the last three days of June checked this tendency in some degree, but the renewal of the hot, damp, and showery weather of the first seven days of July, again increased rapidly the number of attacks of cholera-morbus, cholera-infantum, diarrhœa, and dysentery.

During the sixth and seventh, particularly, the attacks of bowel-affections were, not only numerous, but they were accompanied by unusual languor, prostration, and sweating. The days and nights were hot, cloudy, some rain, and slight wind from the south. Two cases of sunstroke were reported on the seventh.

On the night of the sixth and morning of the seventh, I saw four children presenting symptoms of great prostration; countenances pale; pulse slow and weak; respiration slow and inefficient; mental faculties dull, or in a state of semi-coma, from which it was difficult to arouse them; occasional sighing, and momentary restlessness; but with little or no evacuations of any kind. Their paleness and apparent lifelessness was the chief cause of alarm to the parents and friends. I have noticed a few similar cases during the first extremely hot days and nights of almost every summer. They appear to be the result of a deficiency of atmospheric oxygen and electricity, coupled with the relaxing influence of a high temperature. From the eighth to the eleventh, the number of new attacks of bowel-affections

was less, and the larger number of those that did occur, presented the form of dysentery. But from the eleventh to the seventeenth, the cases of serous diarrhœa and cholera-morbus, especially among children, increased so rapidly that two-thirds of all the patients who came under my observation during that period, were of this class.

Among my daily entries in the note-book, is the following: "During the night of the sixteenth, the air was very hot and oppressive. Both that and the preceding night, children with bowel-complaints became very restless and prostrate, with discharges thin as water. Several were taken suddenly prostrate, drowsy, and feverish, without any discharges." Other periods of rapid increase of new attacks took place during the twenty-first and twenty-second, and from the twenty-sixth to the twenty-eighth, inclusive. According to my notes, four-fifths of the cases of serous diarrhœa and cholera-morbus, that occurred during the whole month, had their *commencement*, either between the first and seventh, the eleventh and seventeenth, twenty-first and twenty-second, or twenty-sixth and twenty-eighth, while the cases of dysentery occurred more uniform throughout the month. If these dates are compared with the detail of atmospheric conditions, it will be seen that a hot and damp atmosphere invariably accompanied the unusually rapid multiplication of cases of diarrhœa and cholera-morbus. Are these atmospheric conditions, coupled with the idio-miasmatic influences generally present in densely populated cities, capable of causing attacks of genuine spasmodic cholera? As bearing on this question, I will simply relate the following facts:

On the night of the seventh of July, one of the most oppressive that occurred during the month, a lady living at 160 Western Avenue, on the extreme western limits of the City, began to have disturbance of the bowels, with serous discharges, which culminated in severe cholera symptoms on the night of the eighth, including the characteristic rice-water discharges by vomiting and purging; severe cramps in the muscles of the extremities and abdomen; a small weak pulse; skin shrivelled and cool; voice husky, etc. Under appropriate treatment she recovered.

Mr. L., living at 200 Huron Street, in the North Division of the City, commenced having serous diarrhœa on the evening of the seventh, which developed into full severe cholera during the night of the ninth.

On the morning of the eleventh, a lady from Kansas arrived at the Adams House, one of the principal hotels of the City. She had been much fatigued by the long journey, and had suffered from a moderate diarrhœa during the three preceding days. Soon after her arrival, the discharges began rapidly to increase, and at noon, she was presenting every symptom of severe cholera. The discharges, up and down, were copious, rice-water in appearance, and accompanied by severe muscular cramps in the extremities. Two hours later, when I saw her, the eyes were deeply sunken; the extremities cold and skin shrunken; the pulse extremely weak; the voice reduced to a whisper; the cramps severe, and the intestinal discharges wholly involuntary. Under treatment the discharges ceased, reaction took place slowly, and the patient ultimately recovered.

On the afternoon of the twelfth, a baker aged about twenty years, living at 172 West Lake Street, was suddenly attacked with severe symptoms of cholera. I saw him about two hours after the commencement of the attack, and the cholera symptoms were strongly marked in every particular. The day was excessively hot, and the man had indulged in drinking eight or ten glasses of beer, two of brandy, besides considerable water.

During the night of the sixth, or morning of the seventh, Mr. H., aged fifty-five years, living at the corner of West Indiana and Sangamon Streets, was attacked with all the symptoms of violent cholera. He had long been in infirm health, and when I saw him, about noon of the seventh, he was in complete collapse. Partial reaction took place, and he lingered until the tenth, when he died.

Mr. W., aged forty-five, living at 245 Madison Street, was attacked with all the symptoms of cholera, on the night of the fifteenth. I saw him early in the morning of the sixteenth, when the characteristic features of the disease were as perfect as in cases seen in the midst of the epidemic of 1854.

Mr. D., aged thirty-five years, a laboring man of intemperate habits, living on Franklin Street, near Jackson, was attacked during the night of the fifteenth. When I saw him, early in the morning of the sixteenth, he appeared to be in the commencement of collapse. Reaction, however, took place, and secondary fever followed, but he finally recovered.

Early in the morning of the twenty-second, I was called in quick succession to three cases of adults, who had been suddenly attacked during the latter part of the night previous with vomiting, purging, cramps, etc. They were seen during the early part of the active stage, and readily yielded to treatment.

On the twenty-first, a case occurred at 282 West Chicago Avenue, which was reported to the Board of Health as genuine epidemic cholera, by Dr. Addison.

Such were the indications of cholera among adults in this City during the month of July, as they came under my own observation. During the whole month cholera-infantum was unusually prevalent and fatal. That the month of July, 1866, was attended by a much greater proportion of bowel-affections than usual, is apparent from the very great increase of mortality. The whole number of deaths in July, 1866, was 706; while for the corresponding month of 1865, it was only 425.

The last three days of July were cool, clear, and pleasant.

It remained cool, with a prevalence of north and north-east winds until the morning of the eighth of August. Showers of rain fell on the third, and steady rain all the night of the sixth. On the morning of the eighth, the wind changed to the south; the air was filled with mist or aqueous vapor, and at midday, was very hot and oppressive. Between five and six o'clock in the afternoon, the wind suddenly changed to the north, and the atmosphere became so cool as to produce chilliness. It remained cool and clear until the eleventh, when the wind changed to the south, the sky became cloudy, and in the evening there fell copious showers with sharp lightning. The twelfth was mostly clear, wind south, and atmosphere very warm and damp. These conditions continued until 11 o'clock, A.M., of the thirteenth,

when the wind again changed to the north, and the air became cool and clear. But at midnight, the direction of the wind was reversed, and the morning of the fourteenth was hot, damp, and oppressive, followed by showers of rain in the afternoon. From this time to the twentieth, the atmosphere was still, or moved only slightly by winds from the south or south-east, very damp, and moderately warm. During the seventeenth and eighteenth, especially, the air was still, and so light that smoke and mist hung close to the earth, instead of rising to the higher regions or drifting away with atmospheric currents.

Rain fell moderately on the evening of the eighteenth and the afternoon of the twentieth. From the twenty-first to the twenty-fifth, the wind was from the north, and the atmosphere cool, even to chilliness at times. Rain fell nearly all of the twenty-third. From the morning of the twenty-sixth to the thirty-first, the atmosphere was again still, damp, and moderately warm, very similar to that from the fourteenth to the twentieth. It was filled with smoke and mist, especially during the nights. The slight winds that were felt, came from the south or south-west, except during the afternoon of the twenty-eighth, when it blew from the north-east, and was cooler.

Slight rains fell on the twenty-ninth and thirtieth, and in the evening of the thirty-first, copious showers fell, with *thunder* and *lightning*, during which the wind changed to the north-west, and blew a stiff breeze. Vivid flashes of lightning continued until a late hour of the night. It was the first display of the kind during the month. From the first to the twenty-fifth of September, the weather was almost continuously cool and rainy, with a prevalence of north and north-east winds. The rains were so frequent and copious that the surface of the earth was kept constantly saturated with fresh fallen water. Occasionally, the sun would shine out clear and warm for two or three hours in the middle of the day; but during the whole time named, there were not three consecutive warm, dry days.

From the twenty-sixth of September, however, to the seventh of October, the atmosphere was clear, moderately warm, and pleasant.

The prevalent winds were from the north, north-west, and north-east. On the seventh, the wind changed to the south and became very light. From that time to the thirteenth, the atmosphere was filled with mist and smoke, and so still as to be scarcely moved by a breeze either day or night. The sky was, most of the time, clear and the atmosphere warm. On the thirteenth, a light breeze sprang up from the north-east, the air was more heavy, and the mist and smoke that had so steadily filled the lower strata of the atmosphere, were dissipated in twenty-four hours. From this to the nineteenth, the weather was mostly clear and pleasant, though warm, and very little wind from any quarter. On the twentieth, there came a strong south west wind, accompanied by clouds and some rain. During the afternoon and evening, the wind became a severe gale, and blew down the walls of some unfinished houses in the City, and during the night, copious showers fell, accompanied by vivid lightning. The twenty-second was cold, mostly clear, with a strong west wind, and frost at night. The twenty-third was cold, cloudy, with a light fall of snow, sufficient to whiten the side-walks.

During the first seven days of August, attacks of cholera-infantum and serous diarrhœa were less frequent than in the middle of July. On the eighth, there was a sudden increase of these affections, and a still more marked increase on the twelfth, when I met one case of cholera at 109 North Water Street, and another on Wabash Avenue, south of Twelfth Street. On the sixth of August, a company of Mormons left one of their number, a native of Denmark, sick at the Rail Road Depot, from whence he was taken to the County Hospital, located between Eighteenth and Nineteenth Streets, where he died in the evening of the same day, with all the symptoms of epidemic cholera. On the ninth, three days after the Dane died, a female nurse, and a male inmate of the Hospital were attacked. From that time, one or more cases occurred daily among the inmates until the eighteenth, when it ceased. The whole number of cases occurring in the institution was 19, of whom 11 recovered and 8 died.

Nearly simultaneous with this outbreak, in the County Hospital, cases of cholera occurred in almost every section of the City. Two were known to occur on the twelfth: one was at 109 North Water Street, and the other on Wabash Avenue, south of Twelfth Street. One case was reported on the thirteenth, at 61 East White Street. Five on the fourteenth, namely: at 241 Monroe Street, 239 Illinois Street, 63 Michigan Avenue, and 323 South Morgan Street; and fifteen on the fifteenth, namely: at 261 and 288 South Wells, 4 Wendell, 43 Quincy, 33 Pierce, 109 and 115 North Water, 125 Superior, 218 DeKoven, 461 South Clark, Alley rear 169 Polk, 65 Indiana, Tremont House, man from St. Louis, and 62 South Canal Street.

From this date to the twentieth, new cases occurred daily in all parts of the city. From the twentieth to the twenty-sixth, the number of cases diminished, but again moderately increased during the remainder of the month. From the first to the twentieth of September, the disease continued in pretty uniform rate of prevalence, although it was restricted more closely to the population of foreign birth, and in parts of the City least improved by drainage and cleanliness. During the two weeks intervening between the twenty-third of September, and the fifth of October, the number of attacks diminished to such a degree that the disease was regarded by many practitioners in the city, as substantially extinct.

The whole number of deaths attributed to cholera during the month of August was 139, and September 166, or an average of five deaths per day. On the seventh of October, however, it was apparent that the disease was again rapidly increasing, seven deaths having been reported on that day. Cases continued to multiply rapidly until the twelfth when the number of deaths, daily, were about 30. From this date until the severe storm of wind and rain on the twenty-second, the disease gradually declined, and then suddenly ceased. The whole number of deaths attributed to cholera during the month of October was 673, being an average of nearly twenty-two per day.

The City is divided into sixteen wards, and though the cholera prevailed in all of them, such prevalence was very unequal.

Thus, of 1550 cases reported to the Board of Health, during the months of August, September, and October, 474, or nearly one-third of the whole, were in the Seventh, Fourteenth, and Sixteenth Wards, while only 130 were in the Fifth, Eighth, and Ninth. The localities of its prevalence will be better appreciated by reference to the accompanying map. The deep red lines bound the several wards. The Seventh may be said to constitute the centre of the Irish laboring population, while the Fourteenth bears the same relation to the Germans.

The number of cases of cholera reported to the Board of Health from the Seventh, was 1 per every 100 inhabitants, and in the Fourteenth, it was 1 for every 95 of population. While in those sections, inhabited almost exclusively by Americans, the ratio reported did not exceed 1 in 250 of the population.

The special districts of cholera prevalence, cannot be accurately represented by the wards, and hence, they are better defined on the map by deep blue lines.*

The predilection of the disease for certain localities was not more apparent, than for the different classes of people and nationalities. The total population of Chicago is nearly equally divided between natives of the United States and those of foreign birth. But of 1500 cases of cholera, concerning which the nativity was given, 287 were natives of the United States;

* The reader will better understand the topography of Chicago if we explain that the highest, most sandy and dry parts of the City lie between Clark Street and the Lake shore, both in the North and South Divisions, and in the Ninth and Tenth Wards, in the West Division. These portions are occupied almost wholly by the best class of residences, and most thoroughly drained by permanent sewers.

The lowest and most alluvial districts skirt both sides of the North and South Branches of the River; but more especially between the east bank of the North Branch and North Wells Street, in the North Division, and between the west bank of the South Branch of the River and South Halsted Street, south of the line of Van Buren Street, in the West Division. These districts are not only low and alluvial, naturally, but they are only partially intersected by sewers, and are covered pretty thickly by a laboring population of foreign birth.

The great business centre of the City is embraced in the First Ward, but extends into the Sixteenth Ward, north, and into the Tenth and Eleventh Wards, west.

GUIDE MAP
OF
CHICAGO.
1867.

Engraved for

N. S. DAVIS M.D.

A B C D E F G H I

1 2 3 4 5 6 7 8 9 10 11 12 13

Range 13 East of 3rd Principal Meridian

12 W d

13 W d

10 W d

9 W d

8 W d

5 W d

CEMETERY

UNION PARK

JEFFERSON PARK

BRIGHTON TROTTING PARK

546 of Germany; 373 of Ireland; 98 of Norway; 45 of Sweden; 42 of England; 34 of Bohemia; 15 of Canada; 13 of Scotland; 9 of Holland; 9 of France; 9 of Denmark; 7 of Finland; 6 of Belgium; 4 of Switzerland; 3 of Italy; 4 of Poland; 1 of Prussia; and 1 of Portugal.

The total mortality for 1866 was 5937, of which 990 were attributed to epidemic cholera, and 1176 to other bowel-affections. Ratio of deaths to population, 1 to 35.

A careful examination of all the facts thus far set forth, will fully establish the following propositions:

1st. That the cause, or causes which gave rise to the unusual prevalence of bowel-affections, in Chicago, during the year 1866, commenced their influence in June, and continued it until the end of October.

This is strikingly exhibited by the following table:

	1865.			1866.	
	Total Mortality.	Cholera.	Other Bowel-Affections.	Total Mortality.	Cholera.	Other Bowel-Affections.
June,	197	0	20	319	0	45
July,	425	0	163	706	2	297
August,	464	0	208	940	139	376
September,	346	0	112	739	166	205
October,	360	0	66	1170	673	114
November,	299	0	40	382	12	28

2nd. That cholera, cholera-morbus, and diarrhœa, in both children and adults, were uniformly increased by high atmospheric temperature and moisture, coincident with south or south-west winds, and the surface of the earth *moist*, that is, neither covered with fresh fallen water nor completely dry.

3rd. That the epidemic cholera, especially, manifested a striking predilection for, and adherence to, such localities as presented the greatest dampness, coupled with the greatest accumulation of decomposable animal and vegetable matter, with the least facilities for ventilation and drainage.

4th. That neither in its beginning, progress, or decline, could there be traced any influence from the importation of persons or goods from other localities.

For instance, it began in persons who had resided in Chicago

for several years; in localities remote from railroad depots, docks, hotels, and warehouses, and in persons who had not been at work in such places; (see cases at 212 Kankakee Avenue, and corner of West Harrison and Morgan Streets, in June, 160 Western Avenue, corner of West Indiana and North Sangamon Streets, 282 West Chicago Avenue, and others in July;) and the disease was altogether most severe and fatal in those sections of the City remote from connection with the centres of trade and travel (see Seventh and Fourteenth Wards, on the map.)

The first case that could be supposed to have brought the disease from some other locality, was the Dane who was taken from the railroad depot to the County Hospital, on the sixth of August. But if we look to this individual for the introduction of the disease, how shall we account for the occasional cases presenting all the phenomena of cholera, and the extraordinary mortality from bowel-affections during the whole of July preceding?

Again, if this individual introduced the infection, why did it not extend first among the large laboring population immediately around the Hospital, in the Third Ward, instead of appearing almost simultaneously in a dozen remote portions of the City, and in persons who had had no possible communication with either the Hospital or its inmates?

By what law of diffusion did it leap over the intervening thousands from the Hospital on Eighteenth Street, in the Third Ward, to light on three children in an alley out of White Street, in the Fifteenth Ward, and with such violence that they were all dead within twenty-four hours? Or, how, during the same day, did it get by everything in front, and search out a poor, secluded old woman, living in a dirty, damp, old house in the rear of 288 South Wells Street? We might go on multiplying such questions indefinitely. It has been said by those who regard the essential cause of cholera as existing in the dejections, that the disease is often spread unsuspectingly by "walking" cases of the disease; that is, by persons having true cholera diarrhœa, but not so severe as to deter them from going about or travelling, and consequently depositing the cholera poison, wherever they

chance to deposit their intestinal evacuations. Unfortunately for this theory, however, many of the early cases of cholera, occurring in this City, in the recent epidemic were in localities so remote or secluded that no stranger or traveller in the city would have had the remotest chance of entering them either by accident or otherwise. On the other hand, it frequently happened throughout the whole season, that a case of violent cholera would occur in a boarding-house, or a hotel, and remain until death or recovery, without imparting the disease to a single other occupant of the same premises during the season. For instance, early in August, a man coming direct from St. Louis, was attacked with cholera on the cars, and on his arrival he was taken in a hack to the Tremont House, where he died the same day. Yet no other case followed it in the same hotel. Indeed, according to my records, a large majority of the cases that came under my personal observations, presented but a single case in the same house. The circumstances, however, which seem to illustrate most strikingly the influence of local causes on the prevalence of this disease, occurred in the latter part of the season.

As already stated, the month of September was characterized by almost constant rains from the first to the twenty-fourth of the month. The consequence was that the level and only partially drained portions of the City, became flooded with fresh fallen water. This was particularly the case in the Sixth, Seventh, Eleventh, Twelfth, and the parts of the Fourteenth, Fifteenth, and Sixteenth Wards, lying between Wells Street and the North Branch of the River. These sections of the city are covered with small wooden houses, occupied chiefly by a population of foreign birth. All of these have out-of-door privies, and many of them board shanties for stabling a horse or cow, or both, on the rear end of the lots. Very few of the privy-vaults are water-tight. Consequently the copious rains of September caused hundreds of these to overflow with water, carrying the fluid part of the contents, with the mascerations of the manure heap into the surface soil of the whole lot. While the flood of fresh fallen water continued, no deleterious consequen-

ces were developed. On the contrary, the prevalence of cholera steadily declined from the fifteenth to the twenty-fifth of the month. So much so, that at the latter date, its prevalence was very generally regarded as ended. Its prevalence in a severe epidemic form had also ceased in the neighboring cities of Cincinnati and St. Louis. On the twenty-fourth of September, the rains ceased, and the atmosphere became clear, cool, and pleasant, and remained so until the end of the month. In the meantime, the Annual State Agricultural Fair opened in the City on the twenty-fourth, and during the six succeeding days was freely visited by thousands, coming from every part of the State. Yet all this company of strangers came and went wholly unharmed, so far as as sickness was concerned. In the meantime, the excess of fresh surface water had been dissipated, and to a casual observer, streets and lots looked dry and pleasant.

During the first week in October, the sky continued clear, the atmosphere was warmer, and scarcely moved by a breeze for several days; emenations began to rapidly impregnate the air from the surface soil so recently saturated with water holding in solution the contents of privies, etc., and by the end of the week, cholera was again doing its work of death with threefold greater rapidity than at any previous time during the summer. Can there be any doubt about the relation between causes and effects here? There had been no trace of any fresh importation of the disease from other cities or towns; and yet, under certain conditions of soil and atmosphere, it attains the proportions of a perfect epidemic almost in a day. Thus developed, its ravages continue until between the twenty-first and twenty-third of the month, when these same conditions become suddenly and violently reversed, attended by an equally sudden disappearance of the disease.

It may be said that the cholera infection, or "seeds," had been previously scattered throughout the City, and that the local and atmospheric conditions described, only served to multiply and impart activity to the previously existing poison. If we admit this, it still leaves in full force the fact of paramount

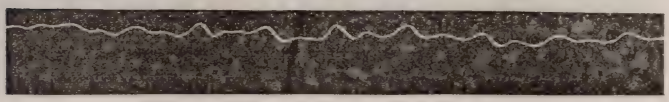
practical value, that whatever may be the origin of the supposed cholera infection, or *germs*, the safety of every community depends upon its own atmospheric and sanitary conditions. Without entering into the domains of theoretical controversy, I will only add the opinion that whenever the origin, progress, and termination of cholera epidemics shall be carefully and minutely studied in their relation to the preceding and accompanying local and atmospheric conditions, and to the prevalence of sporadic cases, with other bowel-affections, it will be found that the same causes that are now acknowledged to be necessary to give *activity* to the supposed infection, are also capable of *originating* it.

ARTICLE XLVIII.

TRACINGS OF THE PULSE WITH MAREY'S SPHYGMOGRAPH.

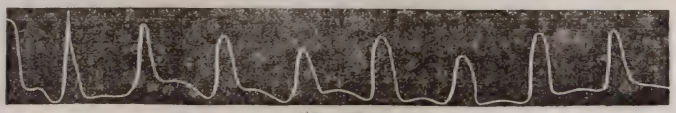
By H. A. JOHNSON, M.D., Prof. Diseases of the Circulatory and Respiratory Organs, in Chicago Medical College.

Read to the Illinois State Medical Society, June, 1867.



(Fig. 1.)

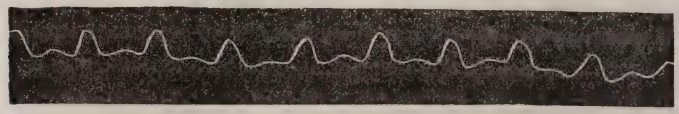
1st. Trace of dicrotic pulse, taken with the sphygmograph from the radial artery of a male patient, *æt.* 35, with typhoid fever, at the end of the third week. Passive congestion of both lungs had just taken place. Treated with quinine in liberal doses, with camphor and morphia. Patient recovered.



(Fig. 2.)

2d. Trace from patient affected with typhoid fever. Male, aged 40; native of Nova Scotia. Taken sick in Nebraska. Intestinal complications not troublesome. Trace taken at the

end of the third week. Patient treated with chloride of sodium. Recovered.

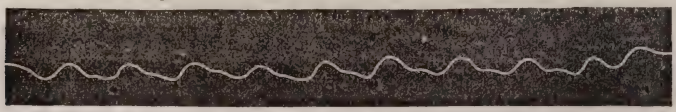


(Fig. 3.)

Trace from patient affected with typhoid fever. Male, aged 30. Bowels troublesome; lungs suddenly congested. Trace taken at the end of the third week, at the very commencement of the pulmonary complication. *Treatment.*—Emulsion of turpentine and laudanum, with quinine, camphor, and strychnia. Died.

(Fig. 4.)

From a patient having typhoid fever. Male, aged 24. Came under treatment at the tenth day. Lungs badly congested; great prostration. Trace taken on the tenth day. Died on the twentieth day.

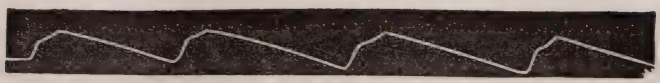


(Fig. 5.)

Pneumonia of right lung. Male, aged 20, Swede. Came under treatment on the fourth day. Trace taken at first visit. Treated with calomel, opium, and ipecac., and afterwards with iodide of potassium, blisters, expectorants, etc. Patient rapidly recovered.

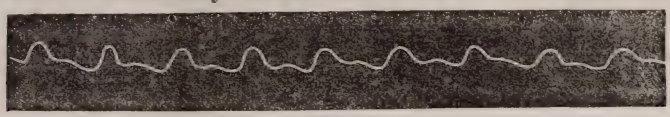
(Fig. 6.)

Pneumonia of right lung, involving nearly the whole of the lung. Male, aged 30. 1st trace (Fig. 6.) taken on sixth day. Treated with cathartics and iodide of potass., followed with



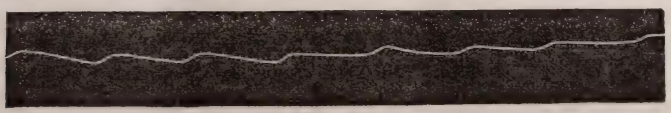
(Fig. 7.)

mixture of scil., ip., sanguinaria, and opium. 2d trace (Fig. 7. taken on the 10th day. Patient recovered.



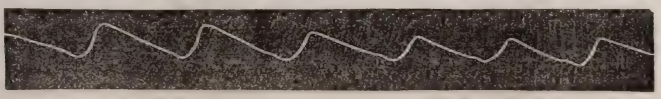
(Fig. 8.)

Prostration from chronic gastritis. Male, aged 30. Has been sick six months. Has paroxysms of cough, attended with great distress; lungs healthy.



(Fig. 9.)

Rheumatism. Male, aged 40. Had rheumatism first about five years ago. 1st trace (Fig. 9.) taken on coming under

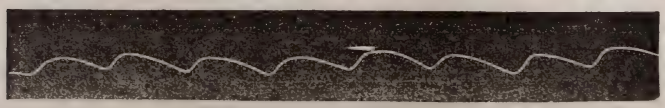


(Fig. 10.)

treatment. Put upon colchicum, in full doses. 2d trace (Fig. 10.) after six days' treatment. Left cured on the 10th day.

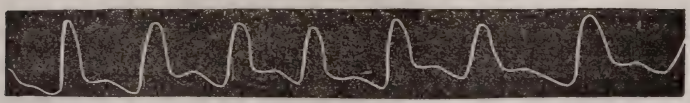
(Fig. 11.)

Rheumatism, not severe. Male, aged 43.



(Fig. 12.)

Contraction of aortic opening. Female, aged 8 years.



(Fig. 13.)

Functional disturbance of heart's action. Male, aged 50, German. Has had trouble with heart for a long time; has also been treated for disease of the kidneys; heart sounds normal in quality, but irregular in rythm and intensity. The trace shows the ordinary movements of the organ. Not much inconvenience is experienced. Did not know that anything was the matter with his heart till told so by a physician. Urine loaded with the urate of ammonia; otherwise normal.

Foreign Correspondence.

THE INTERNATIONAL MEDICAL CONGRESS.

PARIS, Aug. 17, 1867.

This body of medical men, selected from the whole civilized world—from San Francisco to Constantinople, at least—assembled yesterday for the first session. The meetings are held in the Ecole de Medicine, the great school of the Paris Faculty of Medicine. In some respects, the French are behind the age in conducting voluntary conventions. There has been very little pains taken to render the advent and the stay of delegates agreeable and convenient. All that free-hearted zeal which welcomes our American Medical Association to its yearly gathering, and strives, in numberless ways, to make the members enjoy their visit, is wanting here. The Parisians seem to suppose that it is a sufficient blessing to outside barbarians to be permitted to come to the Parisian Paradise, and hear the medical angels expound their discoveries. The *concierge* at the gate did not know where the Secretary was, when he would be in, nor whether the Congress was to have such an officer, until numerous inquiries awakened a suspicion of the fact in his mind. No directions were posted, as to where credentials were to be presented, or names recorded. The delegates ran about the building in a bewildered state, inquiring of each other where the Secretary was, using first one language, and then another, as if a man who did not know a fact in French or English,

might possibly be aware of it in Dutch. Finally, the Secretary was discovered in a side apartment, with no clue to its location visible. He looks at the credentials, but keeps no general register or directory in a visible form for the reference of delegates. Probably, he has a list somewhere, for the records.

The sessions are held, as I said before, in the Ecole de Medicine. This is, in some respects, a fine building, but characteristic of the French nation in its arrangements. It has an expensive and imposing colonnade in front, consisting of some thirty or forty pillars of hewn stone. The amphitheatre has a vaulted ceiling, elaborately panneled and ornamented, and the walls over the desk are hung with some immense and costly paintings. The walls are draped with velvet and damask around the entire room, and above hang the flags of all nations, in graceful clusters. The seats—what a descent!—the seats are benches of bare boards, ten inches wide, and without any backs. The French students who sit for seven years on such seats, must have the patience of martyrs. I recommend the government to sell one or two of the stone columns in front, and appropriate the proceeds to the construction of some comfortable chairs for the pupils.

At 2 P.M., August 16, the President, Prof. Bouillaud, who is renowned for having first brought to light the connection between rheumatism and carditis, entered the desk, and called the assembly to order. About 700 were present. The Secretary-General, Dr. Jaccoud, assisted him, and by his great power and clearness of voice in all his announcements and readings, made atonement for the obscurity of his whereabouts before. The President then read a lively and brief address, which showed that he had gathered neither loquacity nor dulness, by his advanced age. He welcomed the delegates to Paris, and pointing to the standards of the various nations, grouped around the walls, he said: "Let us salute these flags, then, by uniting our hands, as these interlaced banners are united, in sign of complete cordiality and entire fraternity." The gracefulness of the figure took the audience by surprise and brought down a storm of applause.

After the close of the address, the reading of the papers commenced. The topic of the day was expressed as follows:

"*Anatomy and Physiology of Tubercle. Tuberculization in the Different Countries, and its Influence upon the General Mortality.*" The papers presented, were by Prof. SANGALLI, of Pavia; Dr. VILLEMIN, of Paris; Prof. CROCQ, of Brussels; Prof. LEBERT, of Breslau; Dr. MARMISSE, of Bordeaux; Dr. D. LEE, of London; Dr. LARRAMEA, of Bordeaux; Dr. ULLERSPERGER, of Munich; Dr. HOMAN, of Christiana.

After two papers had been read, it became evident that the session was likely to last many hours, and the audience became restless.

Dr. VAN LOHE, a Hollander, rose and began to express his dislike of the order of business and his desire that the Congress should use its rights, and discuss such topics as it deemed best, instead of simply hearing a series of papers read. He commenced as follows:

"Mr. President, is it allowable for me to ask a question?"

The President said: "Certainly, proceed."

He proceeded, therefore, in this wise: "I am a foreigner; I am a Hollander, and, as a Hollander, was sent into this assembly to assist at the Congress. But, up to the present time, I find myself mistaken. It looks to me as if this were not an International Medical Congress, but a court, or a college where the physicians concerned have got together to hear each other read, and for mutual admiration."

The audience waked up at this thunderbolt, and began to applaud the bold Hollander. The President, however, checked him, and courteously reminded him that there was a regular programme of topics, to which it was necessary to conform. Dr. V. L., however, was not to be put down, and proceeded with his speech. The President tried, in vain, to stop him. Finally, the audience deemed that he was going too far, and hissed him down. He took his hat and went out. He reappeared, however, the next day, and the President offered him an opportunity to finish his remarks, but he did not choose to avail himself of the permission.

August 17, at 8 P.M., the second session commenced, there having been no meeting during the day.

The first paper read was on a new operation for opening abscesses of the liver, which had been practiced in Mexico. The second was by Dr. GALEZOWSKI, of Paris, on the alterations of the retina in the tuberculous diathesis. Some fine colored drawings were shown, displaying the increased vascularity of the retina in tubercular meningitis, as seen through the ophthalmoscope.

Another paper was read on the same topic, the two together being illustrated with some forty colored drawings of diseased retinæ. Two papers were also read on the treatment of tubercle. After each reading, time was allowed for discussion, which was embraced with more ease and skill than is usual in the American Medical Association. Each speaker advanced to the tribune, and addretsed the Congress in a seated posture, a rather awkward position for a speaker; however, the remarks were brief, vigorous, and lively. There was less stiffness than in American scientific bodies, wit flowed freely, and the Congress laughed with great hilarity.

I send this report by the steamer about to sail, and will forward the remaining proceedings by a future mail.

E. ANDREWS, M.D.

PARIS, Sept. 1, 1867.

TO THE EXAMINER:

The discussion on tuberculosis, to which I referred in my last letter, brought out very contradictory opinions, which are at present irreconcilable.

Mons. VILLEMIN has made elaborate observations and experiments which lead him to believe that tuberculosis is as much a specific disease as syphilis or variola, and that it may be taken by contagion and propagated by inoculation. Mons. LEBERT, on the contrary, thinks that there is nothing specific about tubercle, and that its elements are purely inflammatory products. He has made a series of experiments, by which he believes he has proved that tubercle may be produced by injecting into

the blood various products of disease, and even mineral substances, such as mercury and carbon. These particles being carried to the lungs by the pulmonary artery, become lodged in the capillaries mechanically, and acting as points of irritation produce tubercles, inflammatory in their real nature, and having all the microscopic and pathological characters of the tubercles of consumption.

Between these conflicting doctrines, it seems we must rest, and wait for more light. The general drift of sentiment in the Congress was, that there is no peculiar anatomical or histological element in tubercle, whatever may be true of its diathesis, or of its virus, if any exists.

On the second day, among other topics, came up that of menstruation, as affected by climate, race, etc. Some elaborate statistics were produced upon the subject of the average age at which menstruation commences among different people. M. LAGNEAU gave the following classification of some 15,000 observations:

Race.	Average age of first menstruation.
North Germans,	16 years, 9 months, 16 days.
English,	14 " 11 " 2 "
French,	15 " 1 " 21 "
Southern Asiatics,	12 " 11 " 17 "

Mr. ROBERT COWIE, of the Shetland Islands, sent a paper on the "*Prolonged Menstrual Life in the Shetland Islands, and its Relation to Longevity*," in which he shows that the Shetland women retain that function very late in life, the average time of the turn of life with them being from 50 to 54 years. By comparison with Scotland, he shows that this late retention of the menstrual function is also accompanied with an increased longevity. He asserts that the age of commencing menstruation does not differ from that of other parts of the kingdom.

On the third day, Professor POLLI, of Milan, known for his experiments on the antiseptic effects of the sulphites in the inferior animals, read a paper on the use of these articles as medicines in septic diseases, and detailed the Italian experience in their use. Both he and the whole Congress seemed to be in

blessed ignorance that this matter had been tested and discussed several years ago in Chicago, and that to Dr. FISHER, Dr. DAVIS, and to the CHICAGO MEDICAL EXAMINER, belonged the credit of publicly establishing the practical value of the remedies. If the European savants would regularly take and read some of the American medical journals, they would often find that ideas which are quite new to them have been discussed for years in America.

On the fourth day, was discussed the very important topic of the accidents which follow surgical operations, such as erysipelas, hospital gangrene, and pyæmia.

It is frightful to contemplate the destruction of life in European hospitals by these diseases, and to perceive that it is kept up by the gross mismanagement of even their best and most eminent men.

The great murderous sin of European hospitals is want of ventilation. They are afraid of pure air, and, consequently, pyæmia is a fearful surgical scourge. Mr. GOSSELIN, at the Hopital de la Pitie, innocently reports that he has an epidemic of erysipelas regularly, almost every winter (at the season when the weather causes the windows to be closed), but seemed to have no suspicion that it might be prevented with ease. He also reports, with the utmost coolness, that of the cases which originate in the hospital every third patient dies. I think this is perfect butchery, and I cannot help comparing it with the better practice in Chicago, where, in Mercy Hospital, deaths from pyæmia and erysipelas have become an almost unknown thing, being completely banished by the simple expedient of opening wide the windows, and keeping every surgical patient, night and day, in a current of pure air. Prof. PAGET, of London, has recently experimented in the same way, though he does not seem to be aware that we had settled the matter in Chicago, and published it years ago. His report confirms my experience. He says that the most efficient preventive of pyæmia, is to place the patient in a constant current of pure air, an announcement which ought to strike like a peal of thunder on the ears of European surgeons. The effect of foul air in

Paris hospitals is such that they do not dare to close wounds by first intention. I have seen them fill the space between the flaps of an amputation with charpie, as they used to do in the dark ages, and the risk of pyæmia is so great as to render many valuable operations wholly unjustifiable.

The surgeons represented in the Congress generally admitted that ventilation favored escape from pyæmia, but the idea rested in their heads in a very sleepy, foggy manner. Not one of them seemed to be aware of the fact that this cause of death can be completely removed by the means of fresh air. The papers which were read showed that the authors were blindly fumbling about in the materia medica, to find some medicament which would enable them to combat pyæmia without pure respiration. Some used a solution of perchloride of iron, applied to the flaps of amputated cases; others applied solutions of carbolic acid; others employed various measures, all very useful and valuable in themselves; but deadly blunders were committed in this respect, *viz.:* they all invited the profession to rely on these secondary measures, instead of *perfecting the ventilation of the hospitals.*

On the fifth day, came up the famous question, "Is it possible to propose to the various governments efficacious measures for restraining the propagation of venereal diseases?"

This question received all sorts of elucidations except clear ones. Those most interested in the discussion, were evidently of the number of those who desired a system of licensed prostitution. Some of the statistics presented were horribly erroneous, as I happened to know from personal investigations, and, on the whole, the discussion of the real question was loose, wandering, and inconclusive.

After the papers were read, verbal discussion upon the subject commenced. The veteran author on syphilis, RICORD, was in the chair. In a few minutes the hot blood of the disputants got the mastery over parliamentary order, the original question was forgotten, and the speakers plunged headlong into a dispute whether syphilitic inoculation was to be commended or not. M. RICORD, though chairman, took an active part in

the contest, and pushed his opponents with a relentless vigor that was refreshing to behold, but not very parliamentary for a presiding officer.

M. AUZIAS-TURENNE had advocated "syphilization," as the grand remedy and preventive. M. RICORD rose and said, that at the first publication of the plan of syphilization, he had demanded that the author should test the innocence and excellence of his practice by a trial of it on his own person. He had never yielded to that demand. Now, if M. AUZIAS-TURENNE wished that they should believe in syphilization, let him have the courage to syphilize himself.

Auzias-Turenne.—"Syphilization must follow the road of all other scientific questions. It is to be judged by the facts in the annals of science, and not by the measure of my courage or cowardice."

Ricord.—"I ask no more than that he should believe his own doctrine. If syphilization is a truth, it follows that soft chancre is to hard chancre what vaccinia is to variola. AUZIAS-TURENNE would then be the JENNER of this kind of pox, and we ought to erect statues to him. Once more, then, I say, if AUZIAS-TURENNE believes in syphilization, let him syphilize himself. Enough of patients have paid their health, and even their lives, for the pretended benefits of syphilization."

A Member of the Congress.—[Shouting at the top of his voice.] "I am a physician. I have been syphilized, and I am perfectly healthy."

Another Member.—"Why don't AUZIAS-TURENNE do it?"

The First Member.—"Because he has not renounced marriage. As for me, I have renounced it. What father or mother would give their daughter to a syphilized man?" [Laughter.]

Ricord.—"On the contrary, syphilization being such a safeguard, syphilized men ought to be in great demand for husbands." [Laughter.]

Auzias-Turenne.—I have offered, in vain, to make experiments before a commission; they demand that I shall experiment upon myself. I refuse upon my dignity. I have no

desire to put myself at the disposition of M. Ricord, to satisfy his curiosity and to serve as the butt of his jokes. I demand that the question be treated scientifically, before a scientific assembly."

Thus the dispute went on, until the hour of adjournment. At a subsequent session, the fight was renewed. Finally, the fact that they had wandered entirely away from the topic of governmental management of syphilis, dawned upon their minds, and the subject was closed by appointing a commission to address the governments on the subject. The following gentlemen were named as the committee: Messieurs Hebra, Vienna; Scitz, Munich; Crocq, Brussels; Seco Baldor, Madrid; Galligo, Florence; Palasciano, Naples; Owre, Christiana; Barbosa, Lisbon; Frerichs, Berlin; Huebbenet, Kiew; Fordyce Barker, New York; Wilson Jewell, Philadelphia; Upham, Boston; R. R. MacIlvaine, Cincinnati; Hingston, Montreal.

The facts brought out before the Congress on the subject of syphilization, may be briefly summed up as follows:

Prof. Boëck, of Sweden, treats secondary syphilis by numerous and long-repeated inoculations of the matter of soft chancre. The plan is this: Several inoculations are made at once upon the patient. When the sores are produced, another set is inoculated, and the first ones destroyed by caustic. Thus crop after crop of chancroids is produced, through a period of several months. At length, after an average of about three hundred and forty-five inoculations, a tolerance is produced, and the patient is found incapable of having any more chancroids. He is then pronounced "syphilized" and cured. During this long treatment, the secondary symptoms generally, or at least frequently, disappear.

Against this treatment, it is urged that some patients have been inoculated to complete insusceptibility to soft chancre, and yet have *failed* to be cured of their secondary symptoms; that thoroughly syphilized women have proved that they were not cured, by bearing syphilitic infants. As to the disappearance of secondary eruptions, it is urged that four months is a long

time, and that in such a period these eruptions often recede from view, spontaneously.

In a few instances, the most disastrous results, and even loss of life, have followed the treatment. The discussion showed that the opinion of the Congress was decidedly opposed to this practice.

A banquet was held at the Grand Hotel, by such of the members who chose to subscribe for the purpose. About 200 subscribed. The feast opened with great eclat, and good feeling. M. Bouillaud was in the chair. Several short, pithy addresses were read, an awkward way of delivery in dinner speeches, but, still, the time went merrily on. In the midst of the festivities, word was brought that the great surgeon Velpeau had just died. This announcement cast a gloom over the assembly, which silenced its mirth and rendered the remainder of the evening a melancholy occasion.

Velpeau's death was rather sudden, as he had been on duty only a few days before, in the hospital. I went the rounds of his wards with him, and saw several of his operations. He was, however, very old, and really superannuated. He held on to his public position too long for his own reputation. His prescriptions and operations, however, were reasonably good, but his wards were the worst ventilated of any that I saw in Paris, and had a strong stench of foul air in every part of them.

At one of the evening sessions of the Congress, M. Milliot exhibited, upon a cat and a dog, a new method of physical diagnosis of tumors, etc., in the visceral cavities. His plan is to illuminate very powerfully the interior of the stomach, rectum, bladder, or vagina by electric light, and then to observe the translucency of the abdomen, on the same principle that we test the translucency of the scrotal tumor to diagnose hydrocele. For this purpose, he introduces into the stomach, rectum, etc., small glass tubes, containing an arrangement of platina wires connected with an electric apparatus. In this way, he produces a powerful interior electric light, which renders the abdomen translucent, like a hydrocele. He hopes to use it for

the diagnosis of ovarian cysts, but has not yet brought it to any practical usefulness.

At the close of the Congress, the venerable President pronounced a brief farewell address, and declared the sessions finally closed. EDMUND ANDREWS.

LARYNGOSCOPY.

MR. EDITOR:—I have frequently been able to overcome the irritability of the throat, sometimes so troublesome in laryngoscopic examinations, by throwing upon the velum and posterior portions of the pharynx a spray of sulphuric ether, by means of Richardson's apparatus. The patient should take a full inspiration before commencing the operation, and the spray should be rapidly carried from point to point, so as not to produce congelation. This method is quicker, more convenient, and more efficacious than ice.

611 Wabash Avenue,
Chicago, Oct. 1, 1867. H. A. JOHNSON.

The Clinique.

BOWEL-AFFECTIONS OF CHILDREN.

Abstract of a Clinic by Prof. N. S. DAVIS, *in Medical Wards of Mercy Hospital. September, 1867.*

GENTLEMEN:—Here is an infant, about eight months old, laboring under one of the most common and fatal forms of disease that the practitioner is called upon to treat. And though the mother has brought it here unexpectedly, I shall make no apology for occupying your attention with the disease which it illustrates, during the present clinic hour.

You notice the child is pale, emaciated, restless, the eyes a little sunken, the line from the alæ-nasi to the angles of the

mouth depressed, making an expression of sadness; and if you examine more closely, you find the skin cool, particularly on the extremities; the pulse small and quick; the muscles flaccid, and the mother will tell you that about two weeks since the child was attacked with serous diarrhœa and vomiting. The latter ceased, or occurred only occasionally, after the first 24 hours, but the diarrhœa has continued to the present time. You will readily recognize the case as one of mild cholera infantum followed by simple diarrhœa; the discharges being thin, varying in color, sometimes green, other times yellow, and again ash-gray, and much of the time very offensive; while the urine is generally scanty. If these symptoms were suffered to continue two or three weeks longer, the child would be reduced to a skeleton; its eyes deeply sunken; its lips pale and thin; the skin in folds or wrinkles on its neck, thighs, and arms; with a feeble pulse, and often husky voice. In this condition, the functions of digestion and assimilation are often entirely suspended, and the patient soon reaches a stage of fatal exhaustion.

The bowel-affections met with in children, every summer, may be arranged into three groups. The first or simplest form of disease commences with mere looseness of the bowels, indicated by from two to six passages daily, more thin and copious than natural, and varying in color from ash-grey to light yellow. It is accompanied by vomiting only occasionally, when the stomach is made too full, and the child often continues cheerful and free from fever, though daily becoming more pale, thinner in flesh, and at times peevish. In this mild form, the disease may continue through the greater part of July and August without the occurrence of structural lesions, and gradually disappear in the early autumn, without any treatment whatever. Many other cases, however, either from a more active grade of irritation in the intestinal mucous membrane, or from a scrofulous constitutional taint, do not thus recover. On the contrary, they are found at the end of from eight to twelve weeks, pale, bloodless, emaciated to a skeleton, the pulse feeble, skin cool, abdomen tumid, appetite often voracious, and

bowels moderately loose and, generally, discharges very offensive, with appearances of undigested food. These symptoms indicate such a change in the mucous membrane of the ilium and the mesenteric glands, that the work of assimilation cannot be carried on, and hence most of such cases terminate fatally; though not, in some, until several months have elapsed.

The second class of cases commence more abruptly, with active vomiting and diarrhœa. Everything that is taken into the child's stomach is quickly rejected by vomiting, often accompanied by much retching; the intestinal discharges are frequent, copious, very thin, and generally of a green or yellow color. The eyes rapidly sink in the socket, the extremities become cool, the pulse small and frequent, with paroxysms of great restlessness. In the most severe cases, the little child becomes so rapidly exhausted that complete collapse and death, sometimes, occurs in from 24 to 48 hours. In cases of less severity, after the first 12 or 18 hours, the vomiting either ceases or becomes occasional only, the intestinal discharges less frequent and copious, and a slight febrile reaction takes place; from this time on, the child continues fretful, thirsty for cold drinks, and constantly troubled with indigestion. If it takes milk or other food, much of it either sours in the stomach and is often rejected by vomiting, or it is hurried through the intestines and appears in undigested curds and masses in the stools. The latter become very variable in color, consistence, and composition. In some cases, they continue very thin, green, or yellow, or ash-grey, and containing only slight indications of mucus and epithelium; in others, they are frothy and offensive; and in still others, they are small in quantity, consisting mostly of mucus mixed with undigested food, and variegated in color. Of course the child continues to emaciate, and often reaches a state of fatal exhaustion in from one to six weeks.

The third variety or group of cases met with in practice present dysenteric symptoms from the beginning.

They are feverish, restless, thirsty, with quick pulse, hot skin, irritable stomach, frequent small mucus discharges, sometimes mixed with blood, and accompanied by straining or tenes-

mus. The disease pursues the same general course as dysentery in the adult.

From these remarks, you will readily perceive that the bowel-affections of children vary much in their symptoms, their pathology, and their results. The essential pathological conditions in the first class of cases are, extreme morbid sensibility of the mucous membrane of the alimentary canal, and relaxation of the same tissue, or diminished tonicity of the capillaries. This causes increased secretion and sometimes effusion from the free surface of the mucous membrane, furnishing the increased discharges, while the function of absorption is, in the same ratio, impaired. Hence, much of the ingesta passes through mixed with the morbid secretions, instead of being appropriated as nourishment.

In the first stage of the second class of cases, the same pathological conditions of the mucous membranes exist, only in a more exaggerated degree. The morbid sensibility and relaxation are such, that the resulting effusion becomes rapid and copious, as indicated by the frequent and copious discharges both up and down. This rapid effusion not only reduces the relative proportion of serous or watery element of the blood, but it also disturbs and detaches more or less of the epithelial covering of the mucous membrane. If the patient does not pass into collapse and death at this stage, congestion takes place in the denuded patches of membrane, and a low grade of inflammatory action follows, with some general febrile reaction, constituting the second stage of the attack. If not controlled, the inflammation thus begun will persist, in many cases, until ulceration and emaciation reach an extent fatal to the little sufferer.

Pathologically, the third group of cases do not differ from cases of ilio-colitis and recto-colitis, in adults. In regard to the causes of these different grades of bowel-affections, a few words are necessary.

Gentlemen, in nine cases out of ten you will be told by the mother or nurse, that the child is *teething;* and, I am sorry to add, that the same thing will be alleged by a large portion of

the profession, as though the simple growth of the child's teeth, and especially their exit through the gums, was a sufficient cause of all these cases. So fixed is this notion in the minds of the people, that thousands of infants are sacrificed every year needlessly, especially among the poorer classes of society. The mother will present you her child for the first time, already emaciated to a skeleton; its eyes deeply sunken; lips thin, pale, and retracted; the skin hanging in folds around its arms and legs; the pulse feeble; the bowels moving from ten to twenty times a-day; with entire suspension of digestion and assimilation.

You ask how long the child has been sick; the mother will answer generally, "three or four weeks, but not to say right sick until the last few days." You ask her what she has been doing for the child all that long time, and she will say, "nothing, except two or three times a dose of castor-oil." You ask why she neglected the child so long, until it is, perhaps, past recovery, and she will reply promptly, "oh! it was *teething*, and she did not think the disturbance of the stomach would signify anything."

Now, it is just this idea of the effects of teething that cause not less than 300 infants to die from neglecting these bowel-affections, in Chicago alone, every summer. And, yet, nothing is more certain, than that the growth of the teeth exerts no influence whatever, as a cause of these affections in children; as the following facts will show:

1st. The attacks occur at all periods of age, from birth to two or two and a-half years: that is, before the growth of the teeth has made the slightest impression upon the gums, and after all are through that will be for some years.

2d. When an attack has commenced, neither the spontaneous exit of one or more teeth through the gum, nor the incision of the gum, affords any perceptible relief to the intestinal symptoms.

I must caution you against one source of error here. It often happens, that one of these little children is presented to the physician, who carefully examines and scarifies the gums,

and, at the same time, prescribes some appropriate medicine to allay the intestinal irritation. The child takes the medicine, becomes better, and, of course, the cutting of the gums is credited with the greater part of the resulting benefit, while, in reality, it exerted no influence whatever.

3d. I have carefully examined the mouths of several hundred infants in the first stage of bowel-affections, and have not found either redness, heat, tenderness, or any other sign of irritation in the gums, in five per cent of the whole number.

But, gentlemen, you will be told, with great emphasis, that "it must be the teeth, for the child is constantly putting its fingers in its mouth, and is biting on everything it can get hold of." Those who make this assertion so gravely forget that the child had been doing precisely the same thing ever since the hour of its birth; and that the act was one of the best evidences that the mouth and gums were free from soreness or morbid sensibility. No child will be found cramming its fingers into a sore mouth, or willingly biting upon a tender or sensitive gum.

4th. The well-known fact, that the diseases in question are restricted in their prevalence to certain geographical limits, and to certain seasons of the year, totally disprove the agency of teething as an efficient cause. Of course, children "cut their teeth" as much in one country as another—as much in January as in July. In this city, for instance, there were the same ratio of children "cutting their teeth" in January last, as in the July following. Yet, in the first month named, there were scarcely more than ten deaths from bowel-complaints in young children, while in the last named month there were near three hundred.

This brings us to the real causes of these affections, namely: high temperature, with impure air, in such localities as give a wide range of temperature between the extremes of winter and summer. In all the populous cities, and in most of the malarious country districts, in what is called the temperate zone of this continent, the first six or seven consecutive days of hot, sultry weather, occurring at the commencement of each sum-

mer, always starts the prevalence of diarrhœa and cholera-morbus among the young children. The coincidence between the high atmospheric temperature and the prevalence of bowel-complaints is so constant, from the beginning to the end of the summer, that no careful observer will doubt their relation, as *cause* and *effect*. To develope a severe prevalence of this class of diseases, the high temperature must act conjointly with such atmospheric impurities as are found in all large cities and in some malarious districts.

Treatment.—The principles that have guided us in the treatment of the various forms of intestinal disease in children, are easily inferred from the explanations already given, concerning their pathology. In the first stage of the two first varieties described, the indications are, to allay the morbid excitability of the mucous membrane, and to restore the proper tone or contractility to its capillary and secretory structures. At a later stage, when, from the continued drain of excessive intestinal discharges the excretory functions, especially those of the skin and kidneys, are greatly impaired or even wholly suppressed, a third indication is, to add such remedies as will aid in restoring both assimilation and secretion. In the simplest form of intestinal disease, as represented in the first class or group of cases described, the union of a simple anodyne and tonic; the one to allay the morbid excitability, and the other to improve the tonicity; fulfils the whole therapeutic indication in the early stage. A formula that I have used with much satisfaction for many years, consists of:

℞. Aromat. Sulph. Acid, ---------- ℥ij.
Sulph. Magnesia, ---------- ℥ij.
Tinct. Opii, ---------- ℥ij.
Simple Syrup, ----------
Mint Water, ----------āā ℥j.

Mix.

Of this, I give, to a child six months old, 10 or 12 drops in a teaspoonful of sweetened water, every three, four, six, or eight hours, according to the frequency of the discharges, and continue their use until the discharges are reduced to one a-day,

and natural in appearance. If it should happen that the discharges cease altogether for twenty-four or even thirty-six hours, do not immediately administer a cathartic, and thereby undo all you have accomplished, but simply suspend the use of the restraining medicine, and wait until the bowels are moved spontaneously. If, when this takes place, the discharge is more natural and without a tendency to frequent repetition, the further use of the drops may be restricted to one dose at night, or night and morning.

It was this prescription that I directed for the little child before you, when it was first brought to me, three days since. Its discharges are already much less frequent and more healthy, and we shall continue the remedy with the confident expectation that its recovery will be complete in three or four days more. Another formula, which I frequently use for the same purpose, is as follows:

℞. Sub. Nit. Bismuth,---------- 30 grs.
Pulv. Opii, ---------- 2 grs.
White Sugar, ---------- 40 grs.

Mix. Divide into 15 powders, of which one may be given to a child one year old, every three, four, or six hours, until the discharges are reduced to their normal frequency.

Whether this or the preceding formula is used, you should inquire carefully concerning the urinary secretion, and if it is in any degree scanty, a few drops of nitrous ether should be given between each of the doses of other medicine. When these cases of simple summer diarrhœa have already become chronic, with much emaciation and debility, I have often obtained the most favorable results from the use of the following:

℞. Erigeron Canadensis, ---------- ℥ss.
Tannate of Quinine,---------- 20 grs.
Sulph. Morph.,---------- 1 gr.

Mix. Pour on it half a pint of boiling water, stir it up well while hot. When cold, give of this infusion, to a child one year old, a teaspoonful every three, four, or six hours, according to the frequency of the discharges.

In the more severe class of cases, such as described in the second group, constituting cholera infantum proper, if called while the vomiting and purging are still active, I generally make two prescriptions, as follows:

℞. Bicarb. Soda,---------- ℥j.
Sulph. Morph.,---------- 1 gr.
Aqua Menth., ---------- ------ ℥ij.

Mix, and give, to a child one year old, 10 drops in a teaspoonful of sweetened water, *immediately* after every turn of vomiting; and,

℞. Hydrarg. Chlorid. Mite,---------- 4 grs.
Pulv. Opii, ---------- 1 gr.
Sacchar. Alba,---------- 20 grs.

Mix. Divide into 8 powders, and give one every three or four hours, until the discharges cease.

After the active vomiting and purging are once checked, if the discharges from the bowels continue too frequent and thin, the subsequent treatment may be the same as already detailed for simple diarrhœa. But if the active stage gives place to a degree of febrile reaction accompanied by small mucous discharges, whether mixed with blood or not, then the following formula becomes far more efficient than any other that we have used:

℞. Ol. Terebinth., ---------- ℥ij.
Tinct. Opii,---------- ℥ij.
Pulv. G. Arabic,----------
White Sugar,----------āā ℥iij.
Rub together and add,
Mint Water,---------- ℥ij.

Mix, and give, to a child 12 or 15 months old, 15 drops every three or four hours, until the discharges are checked, and then continue at longer intervals, until they become natural.

The third class of cases were represented to be dysenteric from the beginning, and, hence, they must be treated as such. But the clinic hour has already expired, and you must be dismissed for the present.

Proceedings of Societies.

MORGAN COUNTY MEDICAL SOCIETY.

The Society met, pursuant to adjournment, at 2 o'clock P.M., at the Court House, in Jacksonville, August 8, 1867.

The President and Secretary both being absent, the meeting came to order, and was organized with Dr. Long in the chair. Dr. Craig, of Arcadia, was elected Secretary *pro tem.*

The minutes of the last meeting, as published in the *Jacksonville Journal*, were read and approved.

Drs. DeLeuw, of Jacksonville, and Edgar, of Arcadia, essayists of the day, being present, the regular order of business was taken up.

Dr. DeLeuw read an interesting paper on "Milk and Artificial Nursing." The subject being open for discussion, remarks were offered by Drs. W. S. Edgar, Prince, Lucas, Fisher, and Reed.

Dr. Edgar remarked that he thought the Doctor had made a happy choice in the selection of his theme; suggesting that practical every-day subjects were always to be preferred to mere abstract principles and theories, and as this was eminently practical, he hoped it would elicit a thorough discussion from those present.

Dr. Prince thought that the reduction of cows' milk to the constituence of that of the mothers was unnecessary—thought a millenium would scarcely ever come when there would not still be a large infant mortality; that the children of poor parents in large cities should be removed into the country, at public expense, if necessary, in order to prolong their existence by furnishing pure air, water, and better food.

Dr. Fisher remarked that his experience taught him that nearly pure cow's milk, when necessary, was the best artificial food for infants.

The generally expressed opinion of the Society was to the

effect that the practice of diluting cow's milk for artificial nursing, so greatly as heretofore, was erroneous.

Dr. DeLeuw thought he had noticed scrofula as a result of too free exhibition of pure cow's milk to young infants.

Dr. Edgar observed that no rule could be strictly adopted, that each case must be separately considered, and that the rules, regulations, and statistics of the large foundling hospitals would prove highly interesting and instructive on this point.

The President, Dr. Henry Jones, of Jacksonville, with several other gentlemen of the Society, arrived.

By request, the paper of Dr. DeLeuw was re-read by the Secretary.

There being no further discussion upon the subject introduced by Dr. DeLeuw, the Society was entertained by an interesting paper read by Dr. Chas. A. Edgar, of Arcadia. The subject, cholera infantum, being one of special interest during the hot season, when such diseases are prevailing, drew forth remarks at length, from the President, and from Drs. Prince, Reed, and W. S. Edgar.

Dr. Jones endorsed and highly recommended the practice mentioned in the work of Dr. Dewees, as first put in vogue by Dr. Miller, of New York, *viz.*, one-sixth to one-fourth of a grain of the mild chloride of mercury, every hour for twelve to sixteen hours, as applicable to the acute stage, which is the stage when the treatment is most effective.

Dr. Prince, in the main, endorsed the practice referred to by Dr. Jones, and objects to the anodyne treatment in the acute stage of cholera infantum—thought that an improvement resulted from a more frequent exhibition of the mercurial in still smaller doses. He depended upon it not so much for its action on the liver as for its influence on the mucous coat of the stomach and intestinal tube. His principal objection to opiates was, that they locked up the secretions, and prevented the discharge of those principles from the blood which it is most desirable to get rid of.

In answer to a question, Dr. Prince remarked that he never observed any symptoms of cerebral disturbance following the use of the Miller treatment in acute cholera infantum.

Dr. Reed approved of the remedy, in so far as the smallness of the dose was concerned, and thought that a still greater reduction of the dose would be attended with good results; but would recommend instead, the use of camphora in small doses, frequently repeated.

Dr. Edgar, of Jacksonville, attested to the efficacy of the Miller treatment, remarking that calomel is not absorbed as calomel; that when given in small doses, it is more readily absorbed, thus producing its effect with more satisfactory results. He had obtained benefit from one-twelfth of a grain, but had failed to observe any appreciable benefit from smaller doses; that the greenish evacuations following the use of submuriate may or may not always be bile, and that the treatment would sometimes fail. He had noticed a wide difference between cholera infantum in the city and in the country; that in the country there was a greater tendency to intermittents than in the city, where the disease generally commenced with vomiting as the result of indigestion, and was attended by a low grade of typhoid fever. The doctor insisted that the use of the syringe was too much neglected; that many children had been saved by thus timely administering medicines and nourishment when articles of all kinds would be rejected from the stomach. He suggested that grated ice and ice water, in cases of excessive vomiting, were very comforting agents, and advised all young practitioners to avoid leeching and blistering, as they were not only troublesome, but often dangerous from exhaustive ulceration; finally, not to look at every case of diarrhœa among infants during the summer as cholera infantum, but to remove any cause of irritation, and rather, by timely treatment, prevent the malady.

The discussion on the subjects being over, a vote of thanks was tendered Drs. DeLeuw and Edgar for the very interesting articles furnished by them.

The President made remarks on the use of the nasal douche. "A word to the wise," etc. Also, referred to the action of tartarized antimony in certain cases of uterine inertia, claiming that it not only produces relaxation of the system generally,

but positive contraction of the uterus, and related an interesting case of obstetrics, in point of theory, in which it seemed to demonstrate its power as a contracting agent.

Dr. Edgar observed that he did not see that the tartar emetic, administered as recommended, in any way hindered the operations of nature; that, whereas, it was a relaxant, he was not prepared to deny that it *might* act as a uterine stimulant. Yet he did not see but that the seeming stimulant effect was, after all, the result of nature unassisted.

The acting Secretary next read his quarterly report as Treasurer of the Society, which was, on motion, received and approved.

Dr. Baker, of Alexander Station, was unanimously elected a member of the Society.

Drs. W. S. Edgar and C. Fisher were appointed to prepare essays for the next meeting.

The Society then adjourned to meet, as usual, at 2 o'clock P.M., on the second Thursday (12th) of September.

JNO. W. CRAIG, M.D.,
Secretary pro tem.

The Society met at the Court House, in Jacksonville, on Thursday, September 12, at 2 o'clock P.M.

The proceedings of the last meeting, as printed in the *Jacksonville Journal*, were read and approved.

Dr. Prince reported a case of epithelioma. The patient had been afflicted with occasional attacks of colic for a year, and during his last sickness was confined to his bed several months, suffering severe pain, the disease finally resulting in death. A *post mortem* examination revealed the fact that the ascending and right half of the transverse colon were very much distended, and the transverse colon was constricted at the median line by an induration of the natural tissue at the base of an epithelial tumor growing upon the interior of the intestine.

Dr. Long remarked that the patient's mother and one brother had died of obscure abdominal affections, and suggested the probability of a family predisposition to the same difficulty.

Dr. Edgar said that the patient had called his attention, within a year or two, to a tumor on the crown of the head, as large as a hickory nut—and several years ago, a lupus had been removed from his face. He thought a cancerous diathesis was clearly indicated in this case.

Owing to the intense pain which was observed, and to the absence of any signs of a tumor, the difficulty had been diagnosed as of a neuralgic character at first, and treated with quinine and iron, which really seemed to benefit the patient for a time.

Dr. Edgar thought that we should not be too easily led to jump to the conclusion of a nervous difficulty when the symptoms seem to indicate a grave organic derangement. The doctor also dwelt upon the importance of keeping a careful record of each case a physician might have—recording faithfully and accurately the various symptoms of obscure diseases, that friends and the profession might be benefited thereby.

The regularly appointed essayists, Drs. Edgar and Fisher, being unprepared, they were allowed still further time, and will be expected to furnish papers for the next meeting.

Dr. Edgar then introduced the subject of tracheotomy in croup, by relating an incident of three German physicians, who, after this operation, attempted to remove a clot of blood from the trachea by applying the lips to the opening, and who contracted the disease and died a short time after.

The President, Dr. Henry Jones, thought the disease must have been diphtheritic croup, as he had never heard or read of any evidence of the contagiousness of croup.

Dr. Prince remarked that he had performed six operations of tracheotomy for croup in children. Three were benefited temporarily, but died by the development of a similar disease in the chest. Had never operated in a case where the contagious or spreading element did not exist. If we could limit the spread of the inflammation, the operation would be successful, but the power or ability to limit this spreading element would also obviate the necessity for an operation. He thought that the best means of limiting this spreading would be an applica-

tion of a strong solution of nitrate of silver to the parts by the atomizing tube.

Dr. Craig remarked that he had used tinct. muriate of iron diluted, in the form of spray.

Dr. Bibb had used a solution of nitrate of silver, in spray, with great relief in one case of croup.

Dr. DeLeuw recommended tincture of iron as an application.

Dr. Long was accustomed to using nitrate of silver.

Dr. H. K. Jones considered tracheotomy merely a mechanical means of affording relief as a last resort. Was in the habit of using in croup, calomel, tartar emetic, and ipecac, as remedies. In diphtheria, I rely upon the sesquichloride of iron. Rarely make local applications. When a pathological condition of the system exists, treat this condition and your local symptoms disappear. Consider that the severity of local disease more often depends upon some depravity of the system.

Dr. Edgar thought but little danger necessarily resulted from the operation itself, as very severe injuries were suffered in this region without producing death. He knew of a case, where not only the trachea was opened transversely, but the œsophagus also, to that extent that food passed out, and yet the patient recovered. Regarded local applications as often very beneficial. Erysipelas was often treated successfully by local means alone, without resorting to constitutional remedies.

Dr. Fisher believed in local applications in croup—though he had not used it, he looked upon the atomizing tube as a very sensible way of applying local remedies in this formidable disease. He considered diphtheria a constitutional disease, and relied upon quinine and chlorate of potash as remedies in its treatment.

Dr. Wilbur seemed to think that it was very difficult to draw the line between croup and diphtheria.

Dr. Henry Jones thought that simple croup was not contagious. Did not see any difficulty in distinguishing croup from diphtheria, as in the latter disease the throat symptoms preceded the anginous affections. Remedies should be adapted to both local and constitutional states of the system. In great

emergencies, the doctor regarded the operation of tracheotomy as certainly proper, as the physician gets time for action. Croup is, originally, a local affection. I regard local applications in idiopathic erysipelas as sometimes beneficial. After the operation of tracheotomy, the treatment should aim to prevent the spread of the disease. In the sore throat of scarlet fever, by a sort of contagion, sometimes whole families will suffer from throat difficulties.

Dr. H. K. Jones did not question the expediency of tracheotomy as a means of relief. Though it sometimes gave temporary relief, the disease usually progressed and terminated fatally. Thought the best remedies were those which attacked the constitutional condition of the system which this progression proceeded from.

At 5 o'clock P.M., adjourned, to meet the second Thursday in October.

C. T. WILBUR, M.D., *Secretary.*

Selections.

LOCOMOTOR ATAXIA.

(Translated, from the German of Althaus in the Deutsches Klink, 1866, for the *Quarterly Journal of Psychological Medicine and Medical Jurisprudence.*)

We may adopt, with Duchenne, three stages of this disease. The first lasts from four to five years, and is characterized by troubles of the cranial nerves, by peculiar pains, and a decrease of the generative power. The second stage lasts ten years or more, and is signalized by the appearance of ataxia and decreasing sensibility. To these symptoms is to be added paralysis in the third stage, and death ensues by exhaustion or some intercurrent disease. The affection is from the beginning either chronic or subacute. The cranial nerves are first attacked, *i.e.*, the optic, the motores oculorum, trochlearis, the abducentes, (amblyopia, diplopia, strabismus, ptosis). The ophthalmoscope ascertains the symptoms of congestion (expansion of the capillary vessels and violet coloring of the membrane) and afterwards (in amaurosis) an atrophy of the retnai. As to its prog-

nosis, it is to be remarked that strabismus or diplopia may disappear even without treatment, while ptosis or amblyopia will not. The pains of such patients are described as jerking, suddenly appearing and disappearing. They are generally located in the lower extremities, and are paroxysmal. If the pain occurs in the bladder, a vesicular catarrh will soon supervene. These pains diminish in spring, but increase after fatiguing walks, and especially after venereal and alcoholic excesses. An important, but not constant symptom, is spermatorrhœa, first with, and afterwards without erections; exceptionally, priapismus and satyriasis will occur. There is sometimes, in the second stage, besides strangury, incontinence of urine and inability to retain the feces, and symptoms of ataxia, appear on a sudden or by degrees. The still vigorous muscles react no longer normally upon the emotional impulse, the equilibrium is lost, complicated motions can no longer be effected. There are two coördinate kinds of muscular activity, *viz.:* the harmony between the antagonists, and the instinctive, or emotional muscular actions. In the latter the antagonists do not remain inactive, but every intended motion results from a twofold nervous action, so that one group of muscles produces a motion, while another moderates it. In progressive ataxia, the capacity for controlling the muscular actions is lost first, although every single muscle may still be contracted, and though even certain associated motions may succeed. Separate muscular contractions, however, do not occur in a normal condition; most of the muscular actions require a great number of simultaneous muscular contractions to which we accustomed ourselves from childhood, and every child suffers, as it were, by ataxia, without being aware of it. Now these associated muscular actions take place in adults instinctively without any special emotional impulse, and if this capacity is gone, we have a case of ataxia before us. It begins mostly in the lower extremities, the gait of the patient becomes faltering (as with many inebriates) and this infirmity is constantly on the increase; if you cause the patient to stand on his feet joined closely together, he begins to sway to and fro, particularly when his eyes are closed. Still this swaying does not in every case indicate ataxia, since it also occurs in different diseases of the brain, with feeble, very anemic persons and infirm convalescents. These symptoms increase by walking, especially when the patient wishes to turn around, in which case the feet are tossed to and fro without purpose, and become useless. Irregular muscular contractions will also take place.

The patient is, while lying down, able to stretch and bend his feet, but he does so suddenly by fits and starts, and can no longer calculate the strength required. The differences from paralysis are obvious: sometimes there is weakness of motion connected with a sensible use of it, sometimes there is sufficient, or even abundant strength, without any power of using it to some definite purpose. These symptoms are far less marked in the upper extremities, the muscles of which may be tested by causing the patient to touch his nose or to make the sign of a cross while he keeps his eyes shut. Sensibility appears disturbed, the feet seem benumbed and heavy, with or without loss of the cutaneous sensibility, this loss manifesting itself in the soles and passing over to the chest, stomach, and the ulnar side of the upper extremities. In ataxia the soles and legs are almost constantly benumbed; this not being so, renders a diagnosis of ataxia doubtful. The decrease of this abnormal feeling indicates improvement. Anæsthesia occurs frequently, but only at a late period and not constantly, but the sensibility of touch never becomes extinct (analgesia, anodynia). The sense of touch is frequently everywhere diminished, and the patient needs often several minutes before he perceives the impression of touch; the reflex movements are, therefore, defective or entirely wanting. The influence of temperature is seldom impaired, but the patient may become unconscious of it, for it is known that patients, supposing they were going to take a tepid bath, have been scalded. The ability of distinguishing weight, too, is diminished, for such as suffer by ataxia cannot, like healthy persons, discriminate between a weight of 29lbs. in one hand and 30lbs. in the other. As this ability may, in the soles of the feet, be diminished, so that the gait becomes faltering, the diminution or absence of this ability has likewise been considered the cause of the faltering gait of persons attacked by ataxia. All the symptoms mentioned above, increase in the last stage of this disease, while the muscular power decreases; the muscles become atrophied, convulsions take place, amamosis, palsy of the bladder, or some intercurrent disease put an end to the sufferings of the patient. It is a singular fact that the disposition of mind of such patients is quite cheerful, notwithstanding all their sufferings.

Regarding the *causes* of this disease we observe, that the greater part of the patients were from thirty to fifty years old, and that this disease affects more men than women. Hardship, cold, and dampness are rightly considered to produce it. The suffering is almost constantly aggravated in autumn and winter:

if there is an improvement in this period, it may properly be attributed to the treatment of the disease. It is not yet ascertained, whether venereal excesses are connected with the origin of this disease, they are at any rate not its principal cause, as was formerly thought to be the case. Over exertion and nervous diseases of the parents are certainly additional causes.

The *diagnosis*, doubtful in the first stage, becomes very easy in the second, even if all symptoms other than ataxia of the muscles are wanting; in the third stage ataxia does no longer exist by itself, as the degeneration of the spinal marrow extends already to the spinal arteries. Ataxia *might be mistaken* for: 1. *myelitis*, in which, however, palsies may occur, but not ataxia; there is no sympathetic affection of the cranial nerves, but pain in the back, spasms and muscular atrophy occur. 2. *Diseases of the cerebellum*, in which a condition similar to ataxia may appear, although the inclination to running forward or backward is more frequently noticed. Important distinctive symptoms are the fixed pain in the occiput, vomiting, a more indolent affection of the cranial nerves, convulsions and the epileptoid symptoms, all of which are absent in ataxia. 3. *Softening of the brain*, in which, however, hemiplegia, loss of memory and mind take place. 4. *Chronic, poisoning by alcohol, lead and mercury* as well as syphilitic affections of the brain, in which diseases we must use anamnestic medicines and apply a treatment *ex juvantibus et nocentibus.* 5. *Palsy of the muscular sense*, a symptom common to different affections; but here the patient is completely palsied, as soon as the eye (representing the muscular sense) does not act any longer; as soon as the patient shuts his eyes or is in the dark, he is palsied; the muscular power is retained, as in ataxia, but the patient can effect motion only in daylight and with open eyes.

Prognosis. Romberg's despairing warning against any therapeutics as merely aggravating the disease, has been repudiated by experience. Even in advanced cases the sufferings of the patients may still be considerably alleviated. Intercurrent diseases impair the prognosis. Two facts encourage the physician to therapeutic interference: first, that the symptoms affecting the cranial nerves (excepting the optic) disappear in time, so that their exists a functional stage of the disease, before the physical changes in the spinal marrow occur, in which stage medicines may accomplish much; second, that Charcot and Vulpian found, in a case of ataxia, some nerve fibres in the spinal marrow which were evidently in a stage of regeneration.

Treatment. If the patient is feeble, declining anemic, pre-

scribe, besides nutritious food, iron, quinine, cod-liver oil, and milk, which latter Hippocrates has recommended for erotic tabes. If great exertions have preceded, rest is imperatively required. Counter-irritants applied to the back must be wholly avoided, but the constant electric fluid may be passed along the vertebral column. Iodine should not be employed, but iodide of potassium and iron may be used, although they may not cure the disease. Baths may be recommended, but ataxic persons should not travel a great distance for them, but rather drink mineral water and take sulphuretted baths at home. Faradization is of no use, galvinization avails against some symptoms without curing the disease. The most reliable of all curative agents is still the arg. nitricum given at the rate of $\frac{1}{10}-\frac{1}{2}$ gr. two or three times a day, which may be administered in connection with phosphate of lime (10–20 gr. pro die). This medicine may in such a dose be given without danger, especially if you discontinue it for a fortnight after every four weeks and give a purgative instead. I pay close attention to the condition of the gums. We must, in general, take care not to treat this disease according to one rule, but sharply individualize, as in all other diseases.

Book Notices.

The Physiology of Man. Designed to represent the existing state of Physiological Science, as applied to the Functions of the Human Body. By Austin Flint, Jr., M.D., Professor of Physiology and Microscopy in the Bellevue Hospital Medical College, and in the Long Island College Hospital; Fellow of the New York Academy of Medicine, etc., etc. Alimentation; Digestion; Absorption; Lymph; and Chyle. New York: D. Appleton & Co. 1867.

This volume constitutes the second of a series, and, like the first, is published in superior style. It contains 556 pages, and affords the reader a very full and instructive review of the state of knowledge concerning the great functions of Alimentation, Digestion, Absorption, Lymph, and Chyle. The first volume related to the Blood, Circulation, and Respiration. Each volume is complete in itself, and supplied with a copious index.

The author is performing a work of real merit, and should be encouraged by the liberal patronage of the profession. The present volume can be found at S. C. Griggs & Co., 41 Lake Street. Price $4.50

Medical Uses of Electricity, with special reference to General Electrization as a Tonic in Neuralgia, Rheumatism, Dyspepsia, Chorea, Paralysis, and other affections associated with general debility. With illustrative cases. By Geo. M. Beard, M.D., and A. D. Rockwell, M.D. New York: Wm. Wood & Co., 61 Walker Street. 1867.

This is a very neatly printed and bound duodecimo volume of 65 pages. The principal part of the matter was originally contained in a series of articles published in the *New York Medical Record;* but both authors and publishers have conferred a favor on the profession by giving it a more permanent and generally accessible form. The chief object of the authors is, to illustrate the *superior efficacy of general electrization* over the more common practice of applying it locally. Practitioners will find this little monograph worthy of a careful perusal.

Price.—Full-bound, $1.00; in paper, $0.75.

Is It I? A Book for Every Man. A Companion to Why Not? By Horatio Robinson Storer, M.D., of Boston, Vice-President of the American Medical Association. Boston: Lee & Shepard. 1867.

This is a duodecimo volume of 154 pages. The subjects treated of are:

1. It is not good to be alone.
2. Marriage as a Sanitary Measure.
3. How early in life is marriage to be advised?
4. The Rights of the Husband.
5. Are these Rights Absolute, or Reciprocal with Duties?
6. Should mere Instinct, or Reason, be the rule?
7. Arguments and Counter-Arguments as to Divorce.
8. A Plea for Woman.

These important topics are discussed by the author, in such

a manner as to interest and profit the reader. Without sanctioning a certain vein of exaggeration, or *sensationalism*, which is perceptible in the author's style, we earnestly commend the work for general perusal. Its main object is to inculcate more correct views in relation to the effects of sexual intercourse, and to point out more clearly the proper relations between husband and wife, with a view to restraining the excesses of the former. Aside from the use of intoxicating drinks, there are probably no evils productive of more social misery than the abuse of the sexual propensities, both in the married and unmarried. Dr. Storer's little work can be found in all our bookstores.

Transactions of the American Medical Association, Vol XVIII. Philadelphia: Printed for the Association, by COLLINS, 705 Jayne Street. 1867. Price $5.00

This, like the preceding volumes, is published in excellent style, and contains 551 pages. We have not time or space, at present, to enumerate the reports and papers it contains. We assure our readers, however, that they are worth more than the cost of the volume.

Editorial.

PROSTITUTION AND SYPHILIS.—In the October number of the EXAMINER we published a letter from Prof. E. ANDREWS, containing the most complete and reliable statistical information concerning these important topics, that we have seen from any source. As the attentive reader will have seen, those facts show conclusively that the attempts perseveringly made in Europe, to limit the spread of syphilis by subjecting prostitutes to legal licenses and inspections, are unqualified failures. And the same results will follow all future laws of the same character, whether in Europe or America, so long as they apply only to *female* prostitutes. Of what avail is it to subject the female

to an examination once a-week, while, from the very nature of the case, she may have a poisonous chancre developed the next day after she has received her certificate of health, and inoculate every one with whom she has connexion during the whole week? Of what avail is it to send the diseased female to a prison hospital for cure, while the *male* libertine is allowed to stalk abroad unmolested, his genitals reeking with disease, ready to inoculate the female again the first night after her liberation from the hospital?

When such laws can be enacted, and *rigidly enforced*, as will compel, not only every female, but every male also, proposing to engage in illicit sexual intercourse, to submit to the same registration and inspection, and the same hospital discipline, then some progress may be made in limiting the spread of disease. When a just public sentiment will as rigidly exclude, from all respectable society, every *man*, whether old or young, rich or poor, who is known to indulge in illicit sexual intercourse, as the present public sentiment does the female, then there will be little necessity for statute laws on the subject.

International Congress.—In the present number of the Examiner will be found two letters from Prof. Andrews, giving a very interesting account of the doings of the recent International Congress in Paris. From the tenor of all the correspondence we have seen, it is evident that a large proportion of those who attended were disappointed at the character of the proceedings.

The Lecture Season.—The two medical schools in this city are again in active operation, with good classes in attendance on both. The Rush Medical College Faculty made a formal opening and dedication of their new building on the evening of October 2d. The President, Prof. Blaney, gave a history of the college. Mayor Rice made a congratulatory speech, in which he unwittingly hit the Faculty a blow directly on the head, by congratulating the audience that the capacious new building was the result of "*no joint-stock* enterprise." And

Prof. GUNN delivered the regular introductory lecture. Making due allowance for the puffing and blowing about the "largest and best college building in the *world*," we believe the exercises were satisfactory to all parties. We understand that the number of students in attendance is nearly the same as last year. We fear it will not take many years to satisfy those who boast so much about the "largest and best college building in the world," that something besides brick and mortar is required to constitute a good school of medicine; and that the magnificent spectacle of 200 or 250 students in lecture-rooms with capacity for 600 or 700, will hardly offset the annual drain occasioned by the interest on $70,000 of indebtedness.

The Chicago Medical College, in its neat and admirably arranged, though unpretentious, building, free from pecuniary incumbrances, held its opening exercises on the evening of Oct. 7th. After prayer by the chaplain, and some remarks on the peculiarities of the college organization, by the President of the Faculty, the introductory lecture was delivered by Prof. NELSON. The hall was filled with a good audience, and the lecture was highly appropriate to the occasion. The number of students in attendance is greater than at the commencement of any previous collegiate year. The clinical courses in the several hospitals are also well attended by students eager for observation and instruction directly at the bedside of the patient.

AMERICAN JOURNAL OF THE MEDICAL SCIENCES.—The October number of this old Quarterly is promptly on our table. We need hardly remind our readers that this is one of the best medical periodicals in this or any other country.

THE MEDICAL GAZETTE.—This is the title of a new weekly journal, published by A. SIMPSON & Co., New York, and edited by L. M. YALE, M.D. It is a regular medical newspaper, issued every Saturday. Price, $2.00 per annum.

L'EVENEMENT MEDICAL.—This is the title of a new weekly medical journal, published in Paris, and edited by Professor PIORRY. It is issued in ordinary newspaper form, every Saturday, at 5 francs per annum.

A New Process for Preparing Anatomical Specimens.—Dr. Brunetti, of Padua, who received a gold medal at the Paris Exposition, has generously communicated to the international Medical Congress the following particulars of his valuable invention. The process comprises four several operations, *viz.*, 1, the washing of the piece to be preserved; 2, the *degraissage*, or eating away of the fatty matter; 3, the tanning; and 4, the desiccation.

1. To wash the piece, M. Brunetti passes a current of pure water through the bloodvessels and the various excretory canals, and then he washes the water out by a current of alcohol.

2. For destroying the fat, he follows the alcohol with ether, which he pushes, of course, through the same bloodvessels and excretory ducts; this part of the operation lasts some hours. The ether penetrates the interstices of the flesh, and dissolves all the fat. The piece, at this point of the process, may be preserved any length of time desired, plunging in ether, before proceeding to the final operations.

3. For the tanning process, M. Brunetti dissolves tannin in boiling distilled water, and then, after washing the ether out of the vessels with distilled water, he throws this solution in.

4. For the drying process, M. Brunetti places the pieces in a vase with a double bottom, filled with boiling water, and he fills the places of the preceding liquids with warm, dry air. By the aid of a reservoir, in which air is compressed to about two atmospheres, and which communicates by a stop-cock and a system of tubes, first to a vase containing chloride of calcium, then with another heated, then with the vessels and excretory ducts of the anatomical piece in course of preparation, he establishes a gaseous current which expels, in a very little time, all the fluids. The operation is now finished.

The piece remains supple, light, preserves its size, its normal relations, its solid elements, for there are no longer any fluids in it. It may be handled without fear, and will last indefinitely. The discovery is a magnificent one, and the sooner medical schools are provided with full cabinets of natural and pathological pieces the better.—*Medical and Surgical Reporter.*

Liebig's Artificial Milk is in imitation, as close as chemistry can make, of the natural food of the human infant. It is prepared as follows: Half an ounce of wheat flour is boiled to a paste in five ounces of skimmed milk. To this is added immediately a mixture of one-half ounce of bruised malt, one

ounce of water, and three grammes of a solution of two parts of bicarbonate of potassa in eleven parts of water. The whole is then kept warm by standing within an envelope of tepid water until it is no longer pastry, but of a creamy consistence. After fifteen or twenty minutes it is put on a fire for a few seconds only, and then strained through a fine hair sieve. It should be allowed to stand long enough to deposit some fibrous matter before it is given to the child or invalid.—*Phil. Med. Reporter.*

Heat as a Resuscitating Agent.—Dr. J. G. Richardson, in the *Am. Jour.*, urges from his observation and experiments the importance of direct Heat as an agent in the restoration of still-born infants, in cases of asphyxia from drowning, hanging, or the inhalation of noxious gases, especially the vapor of chloroform. He advises not merely *warming* the surface but artificially warming the blood within the limbs of persons apparently dead, and then propelling by frictions towards the heart as rapidly as possible. The heart's pulsations in many instances really take place, feebly, for a considerable time after being undiscoverable by external observation. The heat should approximate *roasting* as nearly as may be without positive destruction of the tissues. Mere vesication he thinks ought not to be considered more than a minor evil in comparison with the cessation of life.

Citrate of Soda in Glucosuria.—A French writer, quoted in *Ranking's Abstract*, recommends citrate of soda in daily doses of a-half drachm to a drachm as a remedy in diabetes. It has been shown by analysis, he says, that sugar disappears from the urine when this salt is used with the food instead of common salt.—*Pacific Med. & Surg. Journal.*

Phosphorus Pills.—The formula of Dr. Radcliffe is as follows:—Phosphorus 6 grains, suet 600 grains. Melt the suet in a stoppered bottle capable of holding twice the quantity. Put in the phosphorus, and shake until the mixture becomes solid. Roll into three-grain pills, and cover with gelatine. Each pill will contain the thirty-third of a grain of phosphorus.—*Ibid.*

Death from Swallowing Two Ounces of Chloroform.—Dr. D. W. Stormont, of Topeka, Kansas, reports (*Leavenworth Medical Herald*) a case of suicide by the internal administration of chloroform. The patient was 26 years of age, and in good health at the time. He swallowed two ounces of undiluted chloroform at a single draught. In three minutes after he had

laid himself composedly down, he could with difficulty be aroused from the stupor into which he was rapidly sinking; and though he could not speak, he indicated that he had severe pain in the region of the stomach. In five minutes, he was entirely unconscious and breathing stertorously. He died, in just one hour after taking the draught. Medical assistance, from some cause, did not arrive until a few minutes before he died, and nothing was done to counteract the effects of the poison. At the *post mortem* examination, the surface generally was livid; the face, neck, chest, and nails very much so. Bloody froth was issuing from the mouth and nostrils. On opening the chest, both lungs were found to be dark externally, and fully distended. They were uniformly congested with dark, liquid blood, and the posterior portions were perfectly engorged with it. Both sides of the heart were nearly full of black, uncoagulated blood; the liver and spleen both normal externally, but somewhat softened, and filled with dark, liquid blood. The œsophagus was congested. The stomach, at the cardiac end, and along the greater curvature, and half way up each side, was discolored externally, dotted over with ecchymosed-looking patches, giving it a mottled appearance. It contained two or three ounces of a light-colored liquid, which had a slight odor of chloroform. At the cardiac end, internally, and along the bottom, nearly to the pyloric end, the mucous membrane was of a dark-red color, softened, and easily peeled off with the thumb-nail. Up the sides, it was of a brighter red, speckled appearance, and not softened. The intestines were healthy. Circumstances prevented the extension of the examination, which is much to be regretted. The reporter of the case closes with the following remarks:—"Recoveries are recorded from drinking two ounces, or even more, of chloroform, but active measures were used—as the stomach-pump, emetics, stimulants, internal and external artificial respiration, galvanism, etc. As an internal stimulant, the spirits of ammonia, or the carbonate of ammonia, is the best. Very dangerous symptoms have been produced by half an ounce, and death has been caused by one ounce. Dr. Stillé says:—'When death has been produced by the internal use of chloroform, its local irritant action has evidently been the chief cause of the fatal result.' In this case, death followed too soon to have been produced in this way. It was more probably caused by the action of the poison on the blood and the cerebro-spinal system, as in prolonged inhalation of the vapor. A peculiarity of this case, is the shortness of the time between taking the chloroform and death, as compared with other fatal cases reported."

MORTALITY REPORT FOR THE MONTH OF SEPTEMBER:—

Dr. Rauch submitted the following mortality report for the month of September, 1867:—

CAUSES OF DEATH.

Abscess, pelvic	1	Fever, Scarlet,	3
Abscess, psoas	1	Fever, Typhoid,	18
Accidents,	12	Fever, Typhus,	4
Œdema-glottidis,	1	Gangrene of foot,	1
Anæmia,	1	Gangrene of foot and leg,	1
Angina,	1	Gastritis,	3
Apoplexy,	3	Gastritis, chronic,	1
Atrophy,	1	Hæmoptysis,	2
Birth, premature	12	Hæmoptysis, with phthisis,	1
" still	22	Heart Disease,	8
Bowels, inflammation of	6	Heart, valvular disease of,	2
Bowels, ulceration of	1	Hepatitis, chronic,	1
Brain Disease,	1	Hernia, strangulated	1
" Congestion of,	4	Hydrocephalus,	3
" Dropsy,	1	Inanition,	5
" Inflammation of,	5	Laryngitis,	1
" Pressure of occipital bone,	1	Liver, atrophy of	1
Bronchitis,	1	Liver, hypertrophy	1
Cancer of stomach,	2	Lungs, congestion of	1
" " encephaloid of mesentry	1	Measles,	10
" " uterus,	1	Meningitis,	6
Cerebritis,	1	Meningitis, Cerebral,	2
Cholera-Morbus,	2	Meningitis, Cerebro-Spinal,	3
Cholera Infantum,	82	Meningitis, Tubercular	2
Cholera Infantum and teething,	2	Mouth, excessive morbid growth of	1
Convulsions,	25	Œsophagus, inflammation of	1
Convulsions following measles,	1	Ovarian, disease of	1
Croup,	1	Old Age,	3
Croup, pseudo-membramus,	1	Peritonitis,	2
Cynanche tonsellaris,	1	Pharyngitis,	1
Debility,	15	Pneumonia,	7
Debility from insanity,	1	Pneumonia, chronic,	1
Delirium Tremens,	1	Phthisis Pulmonalis,	24
Diphtheria,	5	Phthisis, Bronchial,	1
Diarrhœa,	36	Potts' disease,	1
Diarrhœa, chronic,	7	Small-Pox,	13
Diarrhœa and teething,	2	Suicide by pistol wound,	2
Dropsy,	1	Tabes Mesenterica,	26
Dropsy, after intermittent fever,	1	Tabes, Mesenterica, with thrush,	1
Dysentery,	19	Tetanus, Traumatic,	1
Dysentry, following measles,	1	Teething,	20
Encephalitis,	3	Teething and Diarrhœa,	2
Encephalo-meningitis,	1	Teething and Whooping-Cough,	1
Enteritis,	3	Throat, Canker sore,	1
Epilepsy,	1	Throat, malformation of,	1
Erysipelas, gangrenus,	1	Urine, suppression of,	1
Fever, Congestive	4	Whooping-Cough,	6
Fever, Intermittent,	1	Unknown,	4
Fever, Puerperal,	4		
Total,			507

COMPARISON.

Total deaths for the month of September, 1867, ---------- 507
Total deaths for the month of September, 1666, ---------- 759

Decrease, ---------- 252

AGES OF THE DECEASED. — Under 5 years, 338; over 5 and under 10 years, 14; over 10 and under 20, 15; over 20 and under 30, 27; over 30 and under 40, 23; over 40 and under 50, 16; over 50 and under 60, 18; over 60 and under 70, 10; over 70 and under 80, 5; over 80 and under 90, 3; still born and premature, 34; unknown, 4. Total, 507.

NATIVITIES.

Chicago,	311	Germany,	42	Poland,	1
Other parts U. S.,	75	Holland,	3	Sweden,	4
Bohemia,	5	Hanover,	1	Scotland,	2
Canada,	5	Ireland,	35	Switzerland,	3
Denmark,	3	Norway,	8	Unknown,	1
England,	5	Prussia,	3	Total,	507

SEXES.

Males, 268 | Females, 239 | Total, 507

MARRIED AND SINGLE.

Single, 428 | Married, 79 | Total, 507
Colored, 3 | White, 504 | Total, 507

DEATHS IN EACH WARD.

The following table gives the average of deaths in each ward, on the basis of the population of 1866:

Ward.	Mortality.	Pop. in 1866.	One death in	Ward.	Mortality.	Pop. in 1866.	One death in
1	1	9,668	9,668	14	34	12,108	356 4-34
2	10	12,985	1,298 1-2	15	50	15,766	315 16-50
3	15	15,738	1,049 3-15	16	31	14,912	481 1-31
4	22	10,884	494 16-24	County hos.,	10		
5	34	9,610	223 28-24	Canal,	1		
6	34	10,580	311 6-34	Bridewell,	1		
7	69	18,755	271 56-69	Home of the Friendl's,	5		
8	40	10,429	260 29-40	Marine hos.,	1		
9	28	13,940	497 24-28	Mercy hos.,	2		
10	12	11,416	951 1-3	Orph. asy.,	3		
11	35	12,924	369 9 35	St. Luke hos.	1		
12	43	12,695	295 10-43	Lake Mich.,	1		
13	24	8,188	341 1-6				

Total, ---------- 507

DENSITY OF OZONE. — M. Soret has proved the density of ozone to be one and a-half times that of oxygen, by the test of diffusion, the relative velocities of which correspond to the theoretical calculation on the assumption of the above proportion; as well as by comparisons of volume, in which it is found that by converting ozone into oxygen, its volume is increased one-half.

MONEY RECEIPTS TO OCTOBER 22D.—Drs. D. J. Hussey, Cherry Valley, Ill., $3; T. T. Ellis, Chicago, 3; Wm. Law, Shullsburgh, Wis., 3.75; H. N. Hurlbut, Chicago, 2; A. C. Simonton, Logan, Ind., 6; A. S. Stewart, Pawnee City, Neb., 2; J. Woodworth, Marengo, Ill., 3.

To PHYSICIANS.—By request, Prof. Horatio R. Storer will deliver his second private course of twelve Lectures upon the TREATMENT OF THE SURGICAL DISEASES OF WOMEN, during the first fortnight of December, at his rooms in Boston. Fee $50, and Diploma required to be shown.

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Hotel Pelham, Boston, 1st July, 1867.

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ARTICLE XLIX.

WHY DO WE GIVE ALCOHOLIC STIMULANTS IN SHOCK?

By D. W. YOUNG, M.D., Aurora, Ill.

Read before the Fox River Valley Medical Association, October 7th, 1867.

Mr. President and Gentlemen:

The above is an important question, both to the profession and the public; is important from its moral as well as its physical relations to society. However, I do not propose to constitute myself a reformer and treat of its immoral bearings upon society, I will leave that to those who make more pretensions in that direction; still, in my judgment, it behooves us all, as a profession, who should be conservators of public morals as well as public health, to study well the reasons that induce us, as a profession, to insist and persist in the sanction and recommendation of an article which is constantly producing such terribly degrading influences upon human society. I cannot help thinking that unless upon a thorough examination *we find it imperative*, we are not justifiable in lending our influence and sanction to its so general use as a medicine. The opinion that alcoholic liquors afford to the human system a stimulus, which, if not absolutely necessary and essential to its well-being, is, nevertheless, beneficial, by promoting in the several organs a

vigorous and healthful exercise of their respective functions, and by enabling them, thus, to resist more effectually the various disturbing agencies to which they are daily subjected, is one that has been long entertained, and of the correctness of which a large portion of the public still entertains a firm conviction. Most undoubtedly, to the influence of this opinion may *and must* be ascribed much of the intemperance which has prevailed in the world; and it, even now, presents a formidable barrier to the success of every effort at reform, in respect to the use of intoxicating liquors as a beverage.

We all know that the practice of giving alcoholic stimulants in all cases of shock, whether physical or mental, has become so common, that not only all physicians, but all the public, fly to the whiskey and brandy bottles as the elixir of life—the great restorers of health and animation. So long as this opinion prevails, every effort to stay the progress of intemperance, with its attendant evils, disease, poverty, insanity, and crime, will of necessity be unavailing.

Is this practice in conformity with the best known medical facts—facts of undoubted observation and experience? Is it based upon scientific medical investigation; or is it simply custom, handed down to us from the dark ages of the profession? To try and answer these questions is the object of this paper. To investigate this subject understandingly, it will be necessary to inquire what shock is; what the physical condition that produces it; what the lesion to be remedied; also, what the known or supposed physiological action or effects of alcoholic stimulants are upon the human system.

Prof. DUNGLISON says:—Shock is a "sudden or instantaneous depression of organic, nervous, or vital power, often with more or less perturbation of body and mind, passing either into reaction or into fatal sinking, occasioned by the nature, severity, or extent of injury, or by an overwhelming moral calamity."

Prof. GROSS, in his system of surgery, says:—"Shock may be defined to be a depression of the vital powers, induced suddenly by external injury, and essentially dependent upon a loss of innervation. It bears, in effect, the same relation to the ner-

vous system, that syncope does to the vascular; in the one case, the result is caused by a diminution of blood; in the other, by a diminution of the nervous fluid; in both, the consequence is, more or less prostration, with perturbation of body and mind, extremely variable both as to intensity and duration. When nervous shock is severe, it may instantaneously terminate in death, as so often happens in falls and blows upon the head; more generally, however, after having continued an indefinite period, it passes into reaction, the powers of life gradually coming up as the different organs and the general system regain their nervous fluid. The most severe and fatal cases of shock are, generally, those that supervene upon direct injury to the great nervous-centres, as the brain and spinal cord. No less disastrous effects occasionally succeed blows upon the epigastric region, in consequence of the violence thus inflicted upon the solar plexus of nerves. The blood has long been known by physiologists, as the vital fluid, so necessary has its integrity always been regarded to the well-being of the system and maintainance of healthy action. But, certainly, it is not the only fluid entitled to this distinction; the nervous fluid is both more subtle and more important as a life preserver. When the blood flows away in a mighty and overwhelming torrent, the person dies, and life is then said to be destroyed, as it certainly is, by the excessive sanguineous drainage. But in shock, the same thing may happen, and yet the body be literally surcharged with blood, not a single drop, perhaps, having been spilled in the accident causing the fatal result. Thus, of the two fluids, the nervous is in every respect the more important, because the more essential to life; and its disturbance is, therefore, a more frequent cause of death.

"There is no sensible practitioner who has not occasion daily to lament, in the exercise of his profession, his want of knowledge of the functions of the nervous system, and I feel sure that cases of disease and accidents are constantly permitted to slip through our hands, simply because of our forgetfulness that there is such a thing as nervous fluid. No one is unmindful that a patient has blood, that a certain quantity of this fluid is

necessary to the maintainance of health and life, and that, like the solids, it is subject to a thousand diseases, often of themselves sufficient to cause death. Unfortunately, we can never acquire any intimate knowledge of an agent so subtle as the nervous fluid; like the electric or galvanic, which it is supposed to resemble, we can know it only by its effects."

COPELAND defines shock to be a sudden sinking of vitality; vital depression; nervous shock; nervous depression; fatal sinking. He makes five divisions or classes:

First. Where the shock may be altogether and simply a vital one, as where it is produced by a violent blow on the epigastrium, occasioning concussion of the solar ganglion.

Second. Where it may be associated with various nervous phenomena, as when a large nerve, or joint, or limb, is lacerated or severely injured, and the patient greatly alarmed.

Third. Where it may be complicated with, or rather characterized by, comatose sinking, as when the contusion, concussion, or blow affects the intimate organization and circulation of the brain.

Fourth. Where it may be so associated with the sinking, consequent upon losses of blood, as not to be distinguished from this cause, especially when the injury is such as occasions both shock and hemorrhage.

Fifth. Where the alarm or shock may be entirely a mental one, or that consisting entirely of the sudden effects of extremely depressing emotions on the action of the heart, or of the sudden and unexpected intelligence of distressing losses or events, whereby the nervous system is more or less shocked, the mental manifestations disturbed, and the functions of the heart and vital organs depressed and otherwise disordered.

He adds:—"It will thus be perceived that the injuries or *causes* occasioning shock may be divided into *five classes*, and that the effects they produce may present *five modified forms;* but although either of these may result from either class of causes, and although it is necessary to connect our observation of the phenomena, and our treatment of shock, with the particular cause of it, it is still more important, especially as regards

the treatment, to mark the particular form and modification requiring our aid."

ERICHSEN says:—"The constitutional effects of shock consist in a disturbance of the functions of the circulatory, respiratory, and nervous systems, the harmony of the great organs of the body becoming disarranged. On the receipt of a severe injury, the sufferer becomes cold, faint, and trembling; the pulse small and fluttering; there is great mental depression and disquietude; the disturbed state of mind revealing itself in the countenance, and in incoherence of speech and thought; the surface becomes covered by a cold sweat; there is nausea, perhaps vomiting, and relaxation of the sphincters. This condition lasts for a variable period, its duration depending on the severity of the injury, and on the nervous susceptibility of the patient. In extreme cases, the depression of power characterizing shock may be so great as to terminate in death. In the great majority of instances, however, reaction comes on, and the disturbed balance in the system is gradually restored. Is this state the result of fear and nervous susceptibility, or is it occasioned directly by the physical lesion? In many cases, doubtless, the effect is entirely mental. Thus, persons have been frightened to death without any local injury or mischief. That there is a great difference in the mental fortitude of individuals, is notorious; some suffering excessive shock from the mere apprehension of injury, whilst others may be the subjects of the severest injury, and show but slight signs of suffering. If the injury be sudden and unexpected, the shock is usually greater. Where the feelings are roused, as in the heat of action, injuries often pass unnoticed by those who receive them. Hence, it is positively evident, that the state of mind at the time of the receipt of the injury materially influences its immediate effect on the constitution. There can be little doubt, however, that different individuals manifest very different degrees of susceptibility to pain, some having more acute sensation than others."

Thus, it will be seen that all these eminent surgeons and authors agree, and define shock to be a "*sudden or instantaneous diminution or depression of organic, nervous, or vital power.*"

All agree that it varies in different cases and persons, according to the severity and extent of the cause or the injury, and the particular temperament, physical and mental condition of the patient at the time of the receipt of the cause or the injury. All these various conditions and circumstances are admitted to have a modifying or controlling influence upon the malady. Why this is so, we are unable to explain; because we do not know what life is—our present limited knowledge of the science of life does not enable us to give an exhaustive definition. BEALE, HUNTER, HARVEY, ARISTOTLE, ABERNETHY, MULLER, PROUT, CARPENTER, HAMMER, and VIRCHOW have all advanced extensive theories, have all written learnedly and guessed extensively, but the question still is, What is life?

The symptoms of shock are very similar in all persons, and from all causes. One receives a blow upon the head; another upon the epigastrium; another, upon the back; another, falls a distance; another, receives sad news, such as the death of friends, or the loss of property; still another, simply witnesses a frightful accident. All reveal the same or similar symptoms. All fall to the ground; become suddenly cold; are bathed in a cold sweat; with deathly paleness; a sunken or collaped countenance; irregular gasping and difficult breathing; are unable to move, speak, or think; frequently become convulsed; vomit; and, after a longer or shorter period, reaction or fatal sinking supervene, life either ceases, or healthy action is restored and life continues. This depressed condition of the organic, nervous, or vital powers we denominate shock, and the question now is, Are alcoholic stimulants the *sine qua non* to remedy this condition? Are we compelled to resort to this health, wealth, happiness, intellect, and life destroying agent to remedy the evil, to remove the shock?

Let us now carefully and candidly enquire what our own experience and the teachings and writings of our ablest and best physiologists and practitioners teach us upon this point. Learn from all this evidence, how well alcoholic stimulants are entitled to their present exalted position in the cure of this prostration. See if we *must* continue to sanction and recommend their use.

GRIFFITH says:—"In small quantities, there is mere excitement; in large doses, much excitement, with delirium, confusion of intellect, followed by somnolency, nausea, and vomiting, and even coma and apoplexy."

STILLE, in his Materia Medica, says, when speaking of its effects on animals:—"When the crural nerve of a frog is moistened with this liquid, the limb loses its power of motion; the same results, with *depressed* action of the heart, ensues when the whole limb is wet with alcohol. The pulsations of the heart soon cease under its application. Fish immediately lose their activity, in water containing but a small proportion of this liquid; and birds, according to FLOURENS, are deprived of sensation and voluntary motion, by a few drops of brandy. Injected into the veins, alcohol always produces symptoms of prostration, proportioned to the quantity used and the purity of the article.

"As early as 1679, COURTEN, LANZANI, and BAGLIVI, all showed that highly rectified spirits might prove instantly fatal, when employed in this manner, and that after death the blood *was always found coagulated in the heart and lungs.*"

SEGALAS "found that half an ounce, with four or five times its weight of water, injected into the crural or jugular vein of a dog, produced loss of motion, insensibility, abdominal respiration, and a *scarcely perceptible pulse.*"

ORFILA "found that eight or ten drachms, injected into the cellular tissue of a dog, produced, first, vomiting of bilious matters, and death in three hours. On dissection, the only lesion discoverable, was coagulation of the blood in the limb operated upon, *and in the heart.*"

DUNGLISON says:—"It need scarcely be said, that the case must be bad indeed, in which the hopes of the practitioner are placed on the excitement which alcohol is capable of inducing. It may be a *question, indeed,* whether it be not calculated to to exhaust the slight amount of excitability still existing in the system."

WOOD and BACHE, in the United States Dispensatory, say: "As an article of daily use, alcoholic liquors produce the most

deplorable consequences. Besides the moral degradation which they cause, their habitual use gives rise to dyspepsia, hypochondriasis, visceral obstructions, dropsy, paralysis, *and, not unfrequently, mania.*"

COPELAND says:—"It should be recollected that the effects of spirits or other intoxicating liquors on the frame, will vary very much with the habits of the individual; with his state of body, especially as respects vascular plethora; and the existing condition of the stomach, chiefly as respects the presence of alimentary matters. In the larger proportion of cases, however, after a longer or shorter period of unusual mental vigor, nervous excitement, and increased action, varying according to the surrounding temperature, the brain becomes oppressed; the powers of voluntary motion, which are early impaired, fail entirely; the mental manifestations are suspended; and in the more severe cases, sensation is lost completely. In most cases and instances, this stage supervenes gradually; but any sudden exposure to cold will often induce it rapidly. The person feels drowsy, and appears to fall into a sound sleep; but it is discovered, when the attempt is made, that he cannot be aroused to consciousness by any effort, or, if it partially succeed, he is hardly sensible of surrounding objects, and immediately lapses into his former state, the limbs remain in whatever position they may be placed. The temperature of the head is generally above natural; but that of the extremities, and often of the surface generally, is *considerably lowered*, or but little altered or affected in the milder cases. The pulse, which was at first quick and excited, becomes feeble, small, and ultimately slow, and entirely wanting at the wrist. The respiration is usually infrequent, the separate acts of inspiration and expiration, particularly the former, occupying a very short time, and is wholly or chiefly abdominal. The breathing is often laborious in the most advanced states, and in those, the respirations are convulsive, the chest expanding by the rapid contractions of the associated muscles of respiration."

WILLIAMS, in his Principles of Medicine, says:—"Nor can we wonder at the pernicious effects, when we consider the weak-

ened state of the function and structure which stimulating drinks induce, especially in the organs which they most directly affect, the stomach, the liver, the kidneys, the blood, the heart, and the brain."

All these eminent authors and teachers ascribe to alcohol, either as a primary or secondary effect, an enfeebled action of the heart and circulation. Besides these, we have the very valuable and interesting experiments and concise report of Prof. N. S. DAVIS, of Chicago, who called both the sphygmograph and thermometer to his aid. As his experiments are both very interesting and very instructive, I shall copy them entire:

"On the 6th day of April, 1867, four hours after dinner, when the functions were supposed to be undisturbed by digestion, and the man in good health, the temperature of his body was carefully noted by a delicately graduated thermometer, inserted under the tongue, with the lips closed around it; the rate of the pulse and its qualities, as indicated by the sphygmograph, were recorded at the same time. Four ounces of bourbon whiskey was then administered, diluted with sweetened water. The same observations, in regard to temperature and condition of pulse, were made and recorded every half hour, until two full hours had passed. Another series of observations, in all respects similar, were made on the 11th of April, except the whiskey, for which four ounces of sherry wine was substituted.

"At the commencement of the experiment, at 10.20 o'clock P.M., the temperature of the mouth was 98¼°, pulse 83 per minute. Then he took the four ounces of whiskey. At 11 o'clock P.M., half an hour after he had taken the whiskey, the temperature of the mouth was 97¾°, pulse 85 per minute. At 11.30 o'clock P.M., one hour after he had taken the whiskey, the temperature of his mouth was 97½, pulse 89 per minute. At 12 o'clock P.M., one hour and a-half after the whiskey was taken, the temperature of his mouth was 97½°, pulse 89 per minute. At 12.30 A.M., two hours after the whiskey had been administered, the temperature of his mouth was 97½°, pulse 85 perminute."

Thus, it will be seen that in this experiment, when four ounces of bourbon whiskey were administered, the pulse increased from 83 to 89 beats per minute during the first hour, but decreased in number of beats per minute, from 89 to 85, during the second hour. The sphygmograph shows, most conclusively, that, notwithstanding, while the number of pulsations were increased from 83 to 89 per minute during the first hour, *the force of the heart and pulsations were weakened.* The heart evidently had less power to propel the blood through the arteries, *and a congestion of the venous radicles must ensue.* The same thing often takes place during venesection, the number of pulsations are increased per minute, but the power of the heart is reduced.

The second experiment made by Prof. DAVIS, differs but little from the first. It was instituted on the 11th day of April, 1867, and is as follows:—"At 10.15 o'clock P.M., three and a-half hours after dinner, the temperature of the mouth was tested with the thermometer, and found to be 97°, pulse 78 beats per minute. At 10.30 o'clock P.M., four ounces of pure, clear sherry wine were administered. At 11 o'clock P.M., half an hour after the wine was swallowed, the temperature of the mouth was $96\frac{3}{4}°$, pulse 75 per minute. At 11.30 o'clock P.M., one hour after the wine was taken, the temperature of the mouth was $96\frac{1}{2}°$, pulse 71 per minute. At 12.30, o'clock P.M., two hours after the wine had been drank, the temperature of the mouth was $96\frac{1}{2}°$, pulse 72 per minute." Thus, it will be seen that under the influence of four ounces of wine, the pulsations were reduced in number per minute, from 78 to 72—lost six beats in two hours. The sphygmograph again shows distinctly that the quality of the pulse was the same in kind in both experiments. *The force of the heart's action was reduced under the influence of both the wine and the whiskey.*

Dr. DAVIS, in commenting upon the results of his experiments, says—"It will be seen that each pulse expands the artery to a greater extent and more suddenly than before the alcoholic liquid was taken, and that the commencement of the contraction is equally more sudden, while the whole line becomes

more wavy or irregular; thereby much resembling the *pulse lines* (as shown by the sphygmograph) when the arterial coats are weakened by fatty degeneration, or in such diseases as are accompanied by enfeebled capillary circulatlon, like typhus and typhoid fevers."

Here, I desire to add that this fact was very forcibly and strikingly illustrated by comparing them with some fifteen or twenty plates presented to the Illinois State Medical Society, at Springfield, by Prof. H. A. JOHNSON, of Chicago, who also presented the results of his experiments with the sphygmograph, in a large number of cases and different diseases. Prof. JOHNSON'S plates showing the *pulse lines*, as recorded by the sphygmograph, in a number of cases of typhoid fever and chronic diarrhœa, were apparently identical with those presented by Prof. DAVIS, as recorded by the sphygmograph in his experiments with alcoholic stimulants. This fact was very apparent, and was noticed and commented upon by numerous and various members of the association. Both sets of plates showed, most *unmistakably*, *enfeebled action of the heart*, notwithstanding the one was recorded while the patient was laboring under the influence of four ounces of bourbon whiskey, and the other after the patient had suffered several weeks under the depressing influence of typhoid fever and chronic diarrhœa.

Dr. LIONEL BEALE, Physician to King's College Hospital, in an article in *Braithwaite*, on Stimulation in Serious Cases of Acute Disease, says:—"I shall not discuss *how* stimulants, in very large quantity, influence disease, but shall, in conclusion, beg permission to direct attention to certain clinical facts which have been observed in many cases placed under the influence of large quantities of alcoholic stimulants (*eig teen ounces of brandy and upwards in twenty four hours*) the pulse was not increased, but diminished in frequency."

Let us next inquire how alcoholic stimulants affect the temperature of the body. So far as I can learn, but few really systematic scientific investigations have been made in this direction, and the proofs relied upon as proving the heat-producing power of alcohol, rest chiefly upon the sensation arising

from its ingestion, and on its chemical constitution, which latter is considered, by those who support LIEBIG'S theory of animal heat, to furnish evidence of the effectiveness of alcoholic compounds as sources of heat, when introduced into the living organism.

It has been, somewhat loosely and gratuitously, assumed that the agent in question exercises a powerful influence on the production of animal heat, this assumption being based principally on the sensation of warmth experienced in our own persons, after taking alcoholic liquors. We know, however, that our sensations are extremely fallacious guides in all matters pertaining to temperature, and that, therefore, in this case as in others, but little reliance can be placed on their indications. I am fully aware that the great majority of authorities are in favor of the opinion that alcohol is a powerful promoter of animal heat. Many patient, honest, intelligent, and competent experimenters, however, deny this, and, in my judgment, give reasons and results which are at least entitled to our candid consideration. As one means of arriving at the truth on this point, we must examine more particularly into the influence of the introduction of alcohol into the blood, upon the respiratory process. For our knowledge upon this point, we are largely indebted to the experiments of Dr. PROUT and Dr. VIERORDT. The former, states that alcohol and all liquors containing it, which he had tried, have the remarkable power of diminishing the quantity of carbonic acid gas in the expired air, much more than anything else which he had made the subject of experiments; this effect being most decided when the liquor was taken upon an empty stomach. Dr. VIERORDT fully confirms Dr. PROUT'S observations; having found that in four experiments, the percentage of carbonic acid fell, after from a half to a whole bottle of wine had been taken, from 4.54 to 4.01; and that this effect lasted between one and two hours. He further found, that when he drank wine with his dinner, the usual increase in the percentage of carbonic acid expired after a full meal did not take place. These facts are of great importance.

Thus, then, there are clear indications that, when thus pre-

sent in the blood with other materials which ought to be excreted, alcohol exerts an injurious influence, by retarding their combustion. This it will do in two ways:—first, by taking their place as the more readily combustible material; and, secondly, in virtue of the antiseptic influence which it exerts upon other substances, preventing or retarding chemical changes in them. That such is the case, we have at least strong proof, as appears from the experiments of BOUCHARDAT, who found that, when alcohol is introduced into the system in excess, the blood in the arteries presents the aspect of venous blood, clearly showing that it has been prevented from undergoing the proper oxygenating process.

The experiments of Dr. PROUT afford strong additional support to this conclusion; for he observed that no sooner had the effects of the alcohol passed off, than the amount of carbonic acid exhaled *rises much above* the natural standard, thus giving, it would seem, unequivocal evidence of the previous abnormal retention of carbonaceous matter in the system.

From the foregoing considerations, then, we may conclude that the effects of alcohol as a heat-producing material, at best, could only be advantageously experienced when the blood does not contain a supply of other matters waiting for removal by the respiratory process. Is it not the case that in all cases of shock, the respiratory process is but imperfectly performed, and that, as a necessary consequence, there must be an excess of carbonic acid retained in the blood? If such is the fact, can it be a logical procedure to administer such articles as will still further increase the already sedative influence of an excess of venous blood?

Dr. JOHN DAVY found that wine, so from increasing the temperature of his body, caused, on the contrary, a very visible diminution of its heat; and, moreover, that the diminution was proportioned to the quantity of wine taken—the greater the quantity, the more marked being the decrease of temperature.

Dr. J. D. HOOKER, who accompanied Sir JAMES ROSS in his Antarctic expedition, also denies the heat-producing properties of alcohol, and says, "that, even if it is capable of warming

the central portions of the body, it is incapable of raising the temperature of the extremities." And Dr. CARPENTER considers that, although alcoholic liquors may possibly produce a slight and transitory increase of heat, yet this is but momentary and followed by a depression that more than counterbalances the previous elevation.

Dr. EDWARD SMITH, of London, says:—"In a prolonged inquiry upon myself and another, we took the alcohol in moderate quantity, duly diluted, on an empty stomach, and we noticed most carefully the general effects and the moment of their occurrence. At first, there was a sense of dryness and heat, with fulness or swelling of the exposed parts. After about twenty to forty minutes, this sensation gave place to one of cold, which was first felt on the most sensitive part of the body, with regard to temperature, *viz.*, between the shoulders, and, at length, notwithstanding the existence of a suitable degree of atmospheric temperature, it became distressing, and led even to shivering. This was sometimes so marked, and occurred so suddenly, that it gave rise to a shock."

Dr. SIDNEY RINGER, Professor of Materia Medica, at University College, and Dr. WALTER RICKARDS, in an article in the *London Lancet*, give the results of numerous experiments instituted by them, in which they say:—"In their first experiment, they gave alcohol in large doses to three adults. In two, the temperature was greatly depressed—the depression amounting to 3° Fahrenheit. In the third case, the temperature was but little influenced. The subject of this observation was a confirmed drunkard. Alcohol was also, by them, injected into the recti of two rabbits; in both, the temperature was considerably depressed—the depression amounted to 15° Fahrenheit. In a second experiment, they gave alcohol to eleven persons, in ordinary doses (an ounce of brandy). In eight, the temperature was depressed; in three cases, the temperature was unaffected. Two of these were confessed free drinkers. In conducting these observations, the following precautions were taken:—the persons were kept in bed; all the conditions were kept the same; the thermometer was kept the whole time

in the axilla, and the temperature noted every few minutes."

In 1848, MM. DUMEREIL and DUMARQUAY, in making numerous experiments on intoxicated dogs, always found their temperature uniformly reduced.

Two years later, 1850, Prof. N. S. DAVIS, of Chicago, instituted a series of experiments, the results of which showed unmistakably that the presence of only a few ounces of either fermented or distilled drinks, in the human system, was sufficient to produce a positive diminution of temperature. To still further verify these facts, Prof. DAVIS again, on the 6th and 11th days of April, 1867, instituted another series of experiments, which also produced the same results. He found that a strong healthy man, who took four ounces of bourbon whiskey diluted with sweetened water, suffered a depression in temperature. The thermometer fell two degrees in an hour. In the second experiment, where he substituted four ounces of sherry wine for the bourbon whiskey, he found the temperature depressed also, but in a less degree. The depression amounted to one-half degree in one hour.

I might continue, and present other authorities, introduce still more proof, but both time and space forbid; and it does seem to me that I have already presented enough to at least cause us to stop and consider the whys and wherefores before we, by example or sanction, fill every human stomach, whose unfortunate possessor is suffering from shock, with alcohol. I simply desire, in conclusion, to add my own views and experience upon this subject. While I have never instituted any scientific investigations, nevertheless, I have had (during a very extensive surgical experience, both in the army and private practice) a pretty good opportunity of witnessing the effect of this agent upon persons laboring under shock. My experience has been, that alcoholic stimulants are very liable to produce extreme nausea, vomiting, and depression of the vital powers. I have thought that they retarded reaction and increased the depression. So marked have been these results, and so distressing their effects, that I have, long since, avoided their administration. I have substituted hot coffee, hot teas,

and hot broth, when obtainable, and have been much better pleased with their effects.

Understand me, I do not advocate the extreme touch not, taste not, and handle not principle, I still claim alcohol as a valuable remedial agent; I believe it well worthy of a place in our materia medica—not as a stimulant, not as food, not as a tonic, *but as an antiseptic;* I believe that its great office is to prevent septimia, and, therefore, that it is a valuable remedy in the various zymotic and suppurative diseases. While I would have it retained in the materia medica, I would also have it labelled on every druggist's shelf as an *acrid, irritant poison*, to be used with much care, in extreme cases, *never, under any circumstances, as a beverage*, BY A PRACTITIONER OF MEDICINE, AT LEAST.

ARTICLE L.

TRIAL OF TETRACHLORIDE OF CARBON AS AN ANÆSTHETIC.—DANGEROUS EFFECTS.

By E. ANDREWS, M.D., Prof. of Principles and Practice of Surgery, Chicago Medical College.

In a letter written a few months ago, to the EXAMINER, I called attention to the new anæsthetic called tetrachloride of carbon, introduced by Dr. PROTHEROE SMITH, of London. Dr. SMITH had used the article in about one hundred cases; and was disposed to believe it safer than chloroform and far more agreeable than ether. On my return to this country, I brought a sample of it with me, from the same establishment which supplies it to Dr. SMITH. I had a patient, upon whom it became necessary to perform the operation of resection of the hip-joint, and who had previously suffered so much nausea after the inhalation of ether, that he very much disliked to take it a second time. As one of the chief advantages of the tetrachloride of carbon is its freedom from nauseating effects, I deemed it best to use it in this case. Having no such inhaler as is used by

Dr. SMITH, I employed a napkin, placed in a paper cone, and held a short distance from the face, as in giving chloroform. My friend, Dr. SHERMAN, whose experience in giving anæsthetics amounts to some thousands of cases, took charge of the inhalation, and proceeded with rather more caution than he would with chloroform. Nothing remarkable occurred at first, but after the lapse of a few minutes, the assistant, whose duty it was to watch the pulse, observed that it increased suddenly in frequency, so that in a short time he was unable to count it. At the same time, the patient, who was not yet unconscious, complained of a violent pain, as of cramp, in the vicinity of the heart, and after a moment more, the pulse and respiration both suddenly ceased. The patient's head was spasmodically drawn backward, the countenance looked pale and deathly, and the pupils of the eyes dilated until the iris could scarcely be seen. Artificial respiration was at once commenced, and strong aqua ammoniæ was rubbed in the nostrils, under which treatment, the patient revived again, although to all appearance almost dead. The anæsthesia was then completed by concentrated sulphuric ether, without further accident, and the carious bone excised in the usual manner. I do not think that there remained any prolonged unfavorable effect after the use of the tetrachloride, but the sudden advent of such urgent and dangerous symptoms made a strongly unfavorable impression on my mind, for the patient was much nearer death than I ever saw one go under ether. I certainly shall not venture on the use of the article again, unless very extensive experience by others demonstrates its safety.

It is proper to state that the patient was in a very exhausted and anæmic condition from the effects of disease, and was operated on as a last, desperate resort, having no other hope of life. He rallied from the operation pretty well, without showing any signs of injury from the tetrachloride, but died, subsequently, from exhaustion.

81 Monroe St., Chicago, Nov. 4, 1867.

ARTICLE LI.

A NEW ECRASEUR FORCEPS.

By E. ANDREWS, M.D., Prof. of Principles and Practice of Surgery, Chicago Medical College.

Nearly a year ago, I devised an instrument, intended as a substitute for the ecraseur, which I named the ecraseur forceps. I afterwards saw an instrument, invented by Dr. SMITH, partly involving the same principle. The form which I had adopted was quite different from the other, and offerred several points of superiority over it. The subjoined wood-cut gives a correct idea of its construction.

It consists of a strong pair of forceps, of which the length of the jaws is to that of the handles as one to four. One jaw is thick, and has a slot through nearly its entire length; the other is thinner, and plays through the slot, as the chain of the ecraseur plays through the opening in that instrument. The jaws are bent towards each other, in such a way that the beaks pass first, enclosing the tissue to be crushed in a diamond-shaped loop, which grows smaller in all directions as the jaws are

pressed together. They act, therefore, very much like the chain of the ecraseur, in gathering all the tissue towards a common centre, under a powerful compression, before they crush it asunder. The edges of the jaws are rounded, to prevent them from cutting like scissors.

This instrument has many advantages over the chain ecraseur, among which is, the ease of its application to almost all sorts of cases. For instance, in removing tumors from the side of the tongue. The chain of the ecraseur has to be drawn through the tongue by a needle and thread, from which the chain must then be detached and attached to the instrument, before the operator can proceed; but in the ecraseur forceps no such trouble is necessary. The surgeon simply applies his instrument to the tongue, like a pair of scissors; the beaks sink through the organ, at the exact spot where they are placed; and the enclosed tissue is instantly under the gathering compression of the jaws. A second application, on the other side of the tumor, completes its removal. In removing piles, it operates admirably well. In case of a large tumor, whose pedicle cannot be wholly grasped at once by the jaws, it is simply necessary to take it at two or three bites. A collateral advantage of these instruments is their cheapness. They are made by Tolle & Degenhardt, Chicago, for from three to four dollars, while a chain ecraseur costs from ten to twenty dollars, according to size. The only objection to it is this:—Ecraseur work should always be done slowly. It is by the *gradual* compression that one makes sure of closing the vessels so as to avoid hemorrhage. The chain ecraseur tightens with a screw, whose turning requires time, and thus compels deliberation; while in the forceps form, it is in the power of a careless surgeon to grip the handles quickly together, and make the sundering of the tissues too sudden. In using it, the surgeon should compress the handles slowly and gradually, allowing about a minute to each act of crushing.

ARTICLE LII.

ON THE SOCIAL EVILS, WITH A PLAN FOR THEIR DIMINUTION, AND A PLEA FOR THE INNOCENT AND HELPLESS.

By GEO. J. ZEIGLER, M.D.

The subject of the limitation of prostitution with its dreadful concomitants, so ably treated of by Prof. ANDREWS, in the last number of your excellent journal, is one that appeals to every true philanthropist, and especially to the members of the medical profession, who are, unfortunately, better practically acquainted with its terrible evils than any other class of men. But, while it is desirable to ameliorate the disorders of the body politic, induced by the illicit intercourse of the sexes, it is much more essential to remove the primary causes of such abnormities, in order to prevent their occurrence and preserve the health and purity of society. This, however, can only be effected by acting in accordance with the natural laws for the development of life and the government of humanity.

Among the many millions of human and other living beings existing in the world there is a certain degree of sexual activity for procreative and other purposes. This sexual instinct is so strong and energetic in the mass of mankind that it cannot be restrained, and in one way or another must be satisfied; for it is a well-known fact that, if these natural desires are not legitimately gratified, irregular indulgences and disorders of various kinds ensue, prominent among which are derangement of the brain, nervous system, genital apparatus, etc., with demoralization, unnatural habits, illicit intercourse, diseases of the sexual organs and general system, and premature destruction of life. Now, as these natural appetites cannot be repressed, they must be regulated, by so reorganizing society as to permit or compel a more regular flow of the sexual current and equable reunion of the sexes.

Prostitution, with its attendant evils, is the more immediate

result of a defective state of society, for, though dependent, primarily of course, upon the undue activity of the sexual appetite, it is always increased by the difficulty of legitimate association and the false ideas respecting marriage, in which woman is placed at a great disadvantage. The prevalence of prostitution cannot be wholly attributed to the inherent depravity of those who sink into it, but mainly to necessity and the extraneous force of circumstances, as it is most likely that woman is generally influenced in her sexual relations more by the strength of her sympathies and the warmth of her affections, than the intensity of her animal desires; for, were it otherwise, the world would be sunk in the grossest licentiousness.

Now, as there are comparatively few women who voluntarily become prostitutes, some decided effort should be made to prevent this wholesale sacrifice of so many of the fairest and purest of our kind, for it is a lamentable fact that the majority of those who thus lapse from virtue are the healthiest and handsomest of their sex, strength and beauty being powerful incentives to sensuality and essential elements for the successful pursuit of a disreputable life. Besides, the necessity for some positive effort in this direction is the more imperative, as the evil is not limited to any one class, but involves, to a greater or less extent, the whole human family, society being thus doubly outraged by the withdrawal of so much that is desirable for the legitimate relations of life, and the reactive injury to the body politic from the poison engendered therein by the vicious action of many of its most vigorous members of both sexes. But, for the requisite efficiency, such action must be based upon the fundamental principles of equity and justice, by fully recognizing the correlative rights, duties, and obligations of the respective sexes. That these are entirely too much disregarded at present, is apparent; for, as it now is, a man may corrupt and seduce a woman, debauch and disease her body, impregnate and beget her with child, and then discard her as a strumpet, he being comparatively free to leave her and repeat the fiendish act with others of her sex, with little risk from the law or loss of social caste. It is, however, quite the reverse with the mis-

guided woman, for, on disclosure of her frailty, there is immediate loss of social status, and her only alternative is either to seek personal or legal redress with the publication of her dishonor, or to remain quiescent and hide or endure her shame as best she can, or give herself up entirely to an abandoned life; and, when impregnated, to resort to abortion and commit child-murder in the wild effort to save her reputation, or submit to exposure and live the balance of her days under the ban of reproach as a degraded being—from which she may, perchance, be relieved by an acknowledged marriage, or, finally, as is so frequent, lapse into prostitution; while her innocent child is regarded as a waif, treated as an interloper in the human family, and branded with the ignominious titles of illegitimate, natural, bastard, etc.

The same injustice is also manifested in the general action of society, in the difference between the penalty inflicted in a simple breach of promise of marriage and seduction, for a man is apt to incur more social obloquy and greater legal punishment for the mere violation of a promise of marriage by word of mouth, than for the actual degradation of the woman by seductive cohabitation, the injury to the female being comparatively slight in the former to that of the latter—attended, as it always is, with loss of virtue, often, also, character, and, frequently, utter ruin; yet, the latter is treated so generally as the lesser, and the former the greater crime.

Now, this is obviously all wrong; yet, as a necessary result of the present imperfect social system, it is maintained as right, thus sanctioning evil and sustaining measures tending to the permanent degeneracy of the race, when by conforming more with the natural laws of life, such deterioration might readily be obviated. But to this end, as before intimated, there must be a radical change in the present views and customs of society respecting the natural affinities of the sexes, marriage, procreation, the rights of children, and the relations of life in general.

It is an acknowledged fact, that there are supreme natural laws governing the action of individuals and of the entire body politic, relating to the association of the sexes, births and deaths,

as of everything else, and all issues in accordance therewith are necessarily legitimate, and cannot, without positive perversion, be regarded otherwise; hence, the usual conception of illegitimacy is, it appears to me, altogether wrong, being based upon false premises. Indeed, the prevailing ideas respecting this subject of illegitimacy are so erroneous as to be a disgrace to the vaunted intelligence, christianity, and civilization of the age. Thus, in the case of children, for instance, the very fact of their birth makes them legitimate in the natural order of things, the same as the production of the lower animals and other forms of life. But, even according to human estimate, there are very few children who could at all be considered otherwise than legitimate, and these only from the association of married men with single women or other men's wives, and single men with married women; all others are, unquestionably, entitled to immediate acknowledgement, and should be legitimatized by legal enactment recognizing the fact that *cohabitation and marriage go together*, the fact of sexual union being sufficient evidence of marital consent on the part of those thus indulging. This act of sexual conjugation being voluntary on the part of both male and female, and the essential element for procreation —the ultimate design of marriage—should be as conclusive of the marital union of men and women by the laws of man as they are by those of God; for, as generation occurs from sexual intercourse by the operation of the laws of life, without regard to human ordinances regulating the marital relation, it is, in reality, the only natural and true marriage physically considered, and, humanly, should be so acknowledged. Hence, as these so-called natural children are the fruit of a natural union of the sexes, and the product of natural marriage, by the operation of natural laws they have, *ipso facto*, the natural right to legitimacy, and should be legitimatized by human as they are by divine power, while their progenitors should be bound together by their marital tie, as well as obliged to recognize and provide for their offspring. Moreover, in those cases of forced conjunction, as in rape, the permanent association might also be made obligatory, if the injured female should decide

that the union, thus involuntarily formed on her part, should be binding, although, even here, in the absence of such desire for its continuance, when impregnation occurred, justice would demand some provision for the legitimacy of the progeny, which might be effected by the application of the same rules as govern in divorce. Of course, if the decision of the woman be adverse to this coerced marriage, the ravisher should be severely punished, as usual. Furthermore, even in those apparently exceptional cases, arising from the intercourse of married men with single women or other men's wives, or single men with married women, the children should also be legitimatized by direct affiliation on the father.

These views are necessarily based upon the idea of monogamy —or the union of one man with one woman—and limited, of course, to those thus first cohabiting; or, secondarily, only as at present, by the loss of the former companion, all other connections being polygamous and illegal, to be punished as bigamy.

This plan is not, however, intended to interfere with the usual preliminary espousals, but designed rather to enlarge the sphere of legitimacy to its natural limits, in enforcing the recognition of an union contracted without preceding nuptial formalities, by legalizing marriages thus naturally consummated, and legitimatizing children engendered and born out of ordinary wedlock, thereby lessening seduction and diminishing illicit intercourse with its attendant evils.

The general adoption of this plan of legalizing marriages sexually consummated, would undoubtedly result in great good to all and harm to none, as, like the pledge by word of mouth, it would bind parties together only by their own act, force them to regard the sacred obligations thus incurred, and compel them to legitimatize and care for their progeny, the same as the more honorable always voluntarily do. To say nothing of the demoralization of men and women from illicit association, it is the height of cruelty to allow innocent beings to be thrust into existence tainted with dishonor, which, in the present state of public opinion, can never be effaced. Society has no right thus to brand the innocent with infamy and debar them from the

normal relationship of life, whatever it may do with their offending parents. But, aside from the gross injustice of the act, and in view of the supremacy of the natural laws for the evolution of life, it is perfectly absurd to deny to children thus organized the claim to a legitimate birthright. It is just as foolish to thus proscribe these unfortunates, as it would be to reject the fruit from the tree because it had not grown in accordance with human ordinances, both being equally passive in their development within the great organism of life.

Thus, by the legal recognition of the fact that *the act of sexual conjugation constitutes marriage*, and binds the cohabiting parties as closely together in the marital relation as extraneous nuptial ceremonies now do, all disgrace would disappear, morality be promoted, weak women and innocent children protected, seduction, abortion, child-murder, prostitution, degradation, disease, and premature death diminished, and society be relieved of much of the evil which now so justly afflicts it, for permitting the present shameful state of things to exist.

It is, hence, both inexpedient and unwise, as well as unjust, to tolerate a system at variance with the principles of physiology, morality, religion, civilization, and infinite justice, which entails so much misery upon innocent beings and humanity in general, when, by the adoption of a more perfect jurisprudence, relief could be so readily obtained and mankind so greatly benefited.

Believing the preceding to be the true solution of a great social problem, and its practical application of inestimable value to humanity, it is the earnest hope of the writer that these few thoughts may enlist the sympathies and unite the efforts of all philanthropists to enact this suggestion into a rule of life, by proper education of society and suitable legislation on the subject, thus bringing human jurisprudence in entire harmony with the natural laws.

But as medical men are most familiar with the principles involved in this great question, and their influence is commensurate with their knowledge, they are especially invited to give this proposition their serious consideration, with a hearty coöp-

eration, to insure the substantial realization of the proposed, or some better plan for thus benefiting their fellow-beings.

Philadelphia, Nov. 2, 1867.

Selections.

CLINICAL PAPERS ON EAR DISEASE.

By D. B. St. JOHN ROOSA, M.D., Prof. in the University Medical College.

NO. I.—INSPISSATED CERUMEN.

It is intended, in the papers which are proposed under the above title, to present some of the practical results of an experience in ear diseases, reaching over quite a large number of cases, in such a way that they may be useful as a guide to those who see comparatively little of the diseases of this organ.

Among the laity, and even in the profession, hardening of the ear-wax is regarded as quite a common and harmless affection. All forms of deafness are ascribed to this cause, and the first treatment that many ear patients receive, is a vigorous syringing to see "if the wax be not hardened," and this often without any preliminary examination. Impacted cerumen is indeed quite a common occurrence, but it is by no means as simple an affair as has been generally supposed. I do not mean by this, that it is anything more, as a general thing, than a local affection, but as such, it may produce results very detrimental to the function of hearing. It hardly seems to occur more frequently in persons with a soft skin than others, as has been suggested by some authors, for among the patients whom I have seen, careful examination has failed to detect any such origin. Persons with a dry and harsh skin have as often come to me with impacted cerumen, as the opposite class. A frequent cause is the too careful washing of the auditory canals with soap and water, which some over-clean persons delight in doing. This rinsing out the canal plugs the natural yellow wax, which is on its way out, down to the bottom of the canal, and being continued morning after morning, at last fills up the ear, and when the drum is once fairly covered, and pressed upon, and *not till then*, deafness results. It is somewhat remarkable how long persons may have the ears plugged up with hard wax without being aware of it. On examining persons who present

themselves with impacted wax, only causing deafness on one side, we will nearly always find the same condition of things as to the wax, in the other ear. If the cerumen be very black and hard, and if it comes out in one large plug, we may conclude that it has been there for years. I recall two cases in which, from definite accounts, we could safely conclude that five years had elapsed since the deafness occurred. In both of these cases, the hearing became normal after the wax was removed. Impacted wax sometimes causes serious inflammation of the canal and drum. In one case, that of a young lady, suppuration of the drum resulted from hardened wax pressing upon it, and the wax was removed spontaneously like a shot from a pistol, and, as was stated, with almost as loud a report. This evacuation was preceded by the most intense pain. The removal of a plug three-fourths of an inch long from the other auditory canal, and which was wedged in very tightly, saved the patient from the inflammation which was so troublesome on the other side. In another case, still under treatment, what was supposed to be on first examination a plain case of inspissated cerumen, was found, after removal of the wax, to be one of inflammation of the integument which lines the canal. The removal of the hardened wax was, as it were, only the removal of a huge scab from an ulcerating surface. I have seen other cases like this.

Inspissated cerumen causes many symptoms. The prominent ones are:

1. Sudden deafness.
2. Tinnitus aurium.
3. Vertigo.
4. Earache.

Of course, an examination is the only method of clearing up the diagnosis. This examination should be undertaken with the ear mirror, (or otoscope, properly called,) and not with the syringe. In other words, it should be ocular, and not tactile. The trouble can hardly be confounded with any other affection. Wax which presses upon the drum is almost always black, not yellow, and nearly fills the canal. No decided prognosis can be given from seeing the wax, as to whether its removal will restore the hearing. Hardened cerumen very often forms over a perforated or ulcerated membrana tympani, and is then of course only a small part of the disease. It often results, also, from the dropping of oils into the ear for some therapeutical end seldom attained. The original disease for which the oils were used was then probably an affection of the cavity of the tympanum.

The habit of examining the ear in all cases with head symptoms, will sometimes assist materially in clearing up a diagnosis. I once cured a man from the effects of a supposed sun-stroke, by removing inspissated cerumen, who had been treated for two months in a hospital for cerebral disease.

Patients who have once had impacted wax, are apt to suffer again from the same cause, at least I have seen quite a large proportion of cases in persons who have been affected in the same way before. Such may be advised to have their ears syringed with a solution of bicarbonate of soda and water, about once in two months. The removal of the hardened mass is very often a tedious affair. I once spent an hour a day for a week in removing a mass from the ear of a lady patient. In the interim, the best solvents, such as soda, were used. With previous soaking the canal with a warm solution of soda, say a drachm to the half pint, ten minutes will generally suffice to remove the mass. A good india-rubber syringe, holding at least four ounces, should be used, and the auditory canal well straightened by holding up the auricle with the left hand, at the same time syringing with the right. The glass syringes are of no use. The stream sent in should be vigorous but steady, and care taken not to eject it with such force as to cause pain or dizziness. There should never be any pain caused in syringing the ear for any purpose. Where pain is produced, syringing will do harm. A thin bowl is held under the ear by the patient. No assistant is needed. No towel need be placed on the patient's neck, for, with careful manipulation, no water will be spilled.

The ear may contain an astonishingly great quantity of hardened ear wax, and an examination should be made very frequently during the course of the syringing to determine when it is all removed. No after-treatment is necessary. If, however, sounds are oppressive, as they often are, after the removal of large quantities of ear wax, a little cotton may be worn in the meatus for a day or two. The membrana sympani always appears reddened immediately after the removal of the cerumen, and then dull. It will be some days before it regains its normal translucency. If the hearing be not improved immediately on removing the wax, the middle ear should be inflated by Politzer's method. The drum is sometimes sunken in temporarily, and one or two passages of air through the eustachian tube will restore its position as well as the hearing.

Professor Gross recommends the use of a pick for the removal of impacted wax. This does very well as an aid where the wax is very hard. If it be used, the surgeon should have a mirror

on his forehead, and never put the pick in the canal, unless he can see just what he is doing. Painful and even destructive inflammation may be caused by this mining out process. The general practitioner, to whom ear cases come in only a small proportion in his daily rounds, had much better rely on the use of a syringe and warm water where possible, having previously moistened the canal with a warmed solution of soda, zinc. sulph., or with glycerine and water, sweet oil, etc. Inspissated cerumen rarely occurs in children. I suppose there is no difference in the liability of the sexes, and I know of no well-established proximate cause, except the one given in the beginning of this article, *i.e.*, packing the meatus by the frequent pouring in of water. Yet, we might say that it is common for hardened wax to collect about a foreign body in the ear, such as a raisin, introduced originally to relieve earache, a cherry-pit, etc., but here the inspissated cerumen is only a concomitant. It is hardly to be credited, although formerly generally believed, that a diathesis has anything to do with it, or that there is any disease of the ceruminous glands. The cause is probably in one way or another mechanical—that is, there is some interference with the normal and daily removal of the secretion.—*Medical Record.*

DELIRIUM TREMENS SUCCESSFULLY TREATED WITH COFFEE.

By WM. R. WHITEHEAD, M.D., New York.

Recently, in a case of delirium tremens, I observed a peculiarly marked tranquillizing effect caused by strong coffee, and which produced prolonged and refreshing sleep, after the usual remedies had proved ineffectual.

Mr. C., a merchant, visiting New York on business, who had been drinking very hard for several days, was taken with delirium tremens on the 13th of last March. His friends stated that they believed this to be his first attack. He was seen by a physician on the 15th, but did not receive further medical attention until the night of the 17th, when I was called to see him. He exhibited the usual symptoms, with the exception of a remarkable absence of muscular twitching on feeling the pulse. His hallucinations were at times very amusing; he was not disposed to be violent, but was quite tractable and easily controlled by his attendants. A mixture containing about a

drachm of chloroform to the dose, was prescribed to be taken every few hours.

The next morning, he was more quiet, having slept about two hours during the night, and for the first time since his illness. The condition of his bowels, his urinary and other secretions, were carefully observed. His tongue was large, white, and moist. Some pills of opium were substituted for a mixture containing chloroform and tincture of hops, ordered early in the day. A small quantity of ale was permitted, and some beef-tea and chicken-broth ordered. At night, he was very restless; his pulse at one time could not be felt; his extremities became cold and respiration labored. I gave him half a glass of whiskey.

On the morning of the 19th, I was told that he slept an hour or two soon after drinking the whiskey; his skin was jaundiced, and he was costive. Twelve grains of blue mass were prescribed, which failed to produce the desired effect. At night, eight grains of calomel were given, to be followed in the morning by a clyster. He vomited several times during the day, but retained the nourishment which he had taken.

On the 20th, his bowels were slightly relieved, his skin was moist, and pulse good. I prescribed sulphate of morphia, in half-grain doses; he became quite restless during the day.

The next day, there was no sensible abatement of the restlessness, and he was not free for any length of time from ludicrous or disquieting hallucinations. At no time, however, was he violent, nor did he manifest great fright. The sulphate of morphia was repeated; he took some nourishment; his bowels were moved with a clyster. Complaining of soreness in the stomach; a blister was placed on the epigastrium.

On the 22d, at the morning visit, being satisfied that the morphia had failed to afford relief; bromide of potassium was given, twenty grains at a dose, every two hours, in a suitable mixture. At the third dose, he became more restless and excited than he had previously been. The bromide was discontinued, and three subcutaneous injections of Magendie's solution of morphia were made, of thirty drops each, at an interval of one hour between each injection. They failed to produce the slightest apparent effect. He drank half a glass of whiskey, which seemed to quiet him considerably. He took frequently during the day Tourtelot's beef-essence with much relish.

On the morning of the 23d, I was told that after drinking the whiskey, he slept three hours, but I found him quite restless. Bromide of potassium was prescribed, in drachm doses,

of which he took two, each at an interval of two hours. At half-past four P.M., he was much more quiet. He asked for a cup of coffee, which he drank very gratefully, and at the same time ate a small piece of bread. Ninety grains of bromide of potassium were ordered at a dose, in which doses, I was reliably informed, it had been recently given successfully in delirium tremens at the New York Hospital. During the night, two doses of the bromide were administered. His urine was abundant and clear; pulse strong and full. He slept about an hour that night. The next day, his bowels were slightly moved with a clyster. The bromide of potassium was repeated twice, in doses of ninety grains, and produced at the second dose some anæsthesia of the skin.

On the 25th, Prof. Willard Parker saw him with me, and observed the same absence of muscular twitching to which I have already alluded. It was decided that the patient should have his body and limbs well rubbed after being washed; that he should be permitted to have a cup of coffee, and as much nourishment as he could be induced to take. At night, a hot whiskey toddy was to be given to him, to be succeeded by inhalations of ether, but the ether was not given.

At the morning visit the next day, I found that he had not slept during the night, and was very restless. The toddy seemed at first, as his nurse informed me, to make him more quiet; but he soon became much more restless after than before taking it. Chloroform, opium, brandy, and bromide of potassium had been each unsuccessfully essayed; the last of these substances in such doses as thoroughly to test its action. One prominent idea, however, governed my course throughout the treatment—it was properly to nourish the patient. I regarded the alcohol as a poison to be eliminated, but considered that the equilibrium of the nervous system should be gradually reëstablished by suitable stimulants. Only temporary benefit resulted from the remedies used; and if at times they failed to produce any appreciable good, they, on the contrary, once or twice seemed to be productive of harm. When quiet and sleep did not immediately follow the use of brandy, the restlessness was much increased. Morphia appeared to be positively injurious. The bromide of potassium, in doses of twenty grains, greatly excited the patient; increased to drachm doses, and then to doses of one drachm and a-half each, made him a little more quiet. I was not encouraged, however, to continue any longer these remedies, but disposed to discontinue further medical treatment, and rely upon the gradual assimilation of concen-

trated and nutritious food, to allay the nervous excitement, and produce sufficient recuperative sleep.

The patient had, several days before, expressed a wish for coffee, which he seemed to relish. It now occurred to me that coffee, acting as a food, containing nitrogenous principles, and also as a special nervous stimulant, might in this case, by its peculiar action, if given in sufficient quantities, produce a quieting effect, and induce sleep. Consequently, coffee was tried; and the issue of the experiment proved to be successful.

At two o'clock P.M., about a pint of very strong coffee was prescribed, with a little cream, enough to make it palatable for him; and a broiled steak ordered, a part of which he ate. At eight o'clock P.M., I found that he had slept four hours. He drank again a large cup of coffee, and took fifteen grains of blue mass.

On the 27th, at the morning visit, I found that he had slept nearly all night, but was then restless. His bowels had been moved, and his general condition was very much improved. Very strong coffee was again prescribed, and at half-past twelve o'clock P.M., I found him asleep. After this, the coffee was repeated a few times; he continued to improve, and soon recovered.

Probably this nervous stimulant, by imparting an increased tone of a peculiar character to the general system, reëstablished its equilibrium and caused sleep, when other stimulants, acting in a different manner, failed to produce this result. This, however, is merely a conjecture, and may possibly be explained by others in a more satisfactory manner.—*Medical Record.*

ACTION OF BELLADONNA IN DISEASE OF THE CORNEA.

By JOS. S. HILDRETH, M.D., Chicago, Ill.

The use of belladonna, or other mydriatic, in some forms of corneal disease, is indispensable; while in others it becomes unnecessary, and often injurious.

From the complex structure of the eye, rendering it susceptible to numerous pathological changes, arises this apparently diverse action.

In the normal eye, the cornea is endowed with a delicate sensitiveness to the lightest touch; the pupil quickly responds to

the influence of atropia, and its effects are quite persistent. This corneal sensitiveness remains, whether the pupil be dilated or contracted.

But clinical observation has demonstrated a condition of the eye in which the nervous integrity of the cornea is so disturbed as to cause a peculiar state of anæsthesia; the dilatability of the pupil is correspondingly lessened, and the effects of atropia are of shorter duration.

By gently touching the cornea with the point of a small camel's hair pencil, previously wet and stripped quite dry, or the point of a small roll of soft paper slightly moistened, the degree of anæsthesia is determined.

By instilling one drop of a solutiou of atropia of definite strength* within the lids at intervals of fifteen minutes, the dilatability of the pupil can be estimated.

These signs are pathognomonic of a condition which appears to be due to some defect of nervous action, which causes contraction and congestion of the ciliary ring.

The symptoms may be acute, with more or less congestion, or chronic without it.

There is another distinct form of corneal anæsthesia, which occurs in all glaucomatous affections. It is invariably produced by intra-ocular tension, and with a pupil dilated or readily dilatable; and, therefore, materially differs from that above described.

As there is no intra-ocular tension, and dilatability of the pupil is invariably diminished in the former, I have designated it as anæsthesia of the cornea and radiating fibres of the iris *without intra-ocular tension*, in contradistinction to the latter.

It is found that, as the depressed vitality of the cornea improves, normal dilatability of the pupil returns. To dilate and so maintain the pupil, relieves the anæsthetized cornea.

Nov. 30, 1866. Mr. B——, aged 35, bookkeeper. Slightly scrofulous and debilitated by overwork.

Four months previous had an attack of iritis in left eye which lasted two weeks. It was uncomplicated; no injury resulted; accommodation and vision were good. Was able to use both eyes without difficulty on the 28th. Felt trouble in the left eye the 29th, for which no cause can be assigned.

An irregular transparent ulceration quite deep, three millimetres wide, extends from lower margin of cornea four millimetres towards the pupil. The adjoining parts appear slightly infiltrated. The cornea is anæsthetized, especially the inferior

* Four grains of neutral sulphate of atropia to one ounce of water.

three-fourths. The pupil, smaller than the opposite, feebly responds to reflex movements and light. No other apparent disturbance of cornea or iris. Slight perikeratic injection. No inflammation or anæsthesia of conjunctiva, sclerotic, or lids. No evidence of paralysis of any part. Moderate photophobia and pain in central parts of globe.

Three drops of atropia solution, instilled within the lids five times during one hour and a-half, produce dilation of the pupil, and diminish corneal anæsthesia.

To apply two drops of same solution, within the lids, four times during the next twenty-four hours, and keep the eye well shaded. No other treatment.

Dec. 1st. Pupil more dilated; corneal anæsthesia nearly removed.

The ulceration is covered by a grayish exudation, and the remainder of the cornea is transparent. Perikeratic injection has nearly disappeared, and pain abated. Continue treatment.

Dec. 2d. Pupil well dilated; cornea quite free from anæsthesia; reparative exudation augmented. Continue treatment.

Dec. 4th. Pupil largely dilated, and no anæsthesia of cornea. Ulceration improving; no perikeratic injection or pain. To apply one drop of atropia solution twice daily.

The tongue being coated, with sensation of dryness of the fauces, muriate of ammonia mixture ordered.*

Dec. 10th. Repair of cornea quite complete. A few delicate vessels pass from its border, a short distance upon the newly formed material. Cornea free from anæsthesia, and pupil largely dilated.

Muriate of ammonia mixture, and atropia discontinued. Brown's citrine ointment to be applied three times weekly to the conjunctiva. To take a tonic mixture of bark and iodine.

Dec. 28th. The ulceration has healed, leaving a slight bluish trace. The pupil free in its movements, responds to reflex movements and light. Cornea free from anæsthesia. Vision and accommodation good.

In this case congestion and contraction of the ciliary ring produced anæsthesia of the cornea and radiating fibres of the iris. The patient being scrofulous and debilitated, keratic ulceration speedily followed.

* R.—Ammoniæ Muriatiss,---------- 1 dram;
Potassæ Chloratis,---------- ss dram;
Aquæ Destillatæ,---------- 3 f oz.
Syrupi Auranti,---------- 1 f oz.—M.

Sig.—One teaspoonful from three to six times daily.

Atropia, by relieving the congestion and contraction of the ciliary ring, restored the nervous integrity of the cornea, and allowed the reparative process to go on.

Sept., 1866. W——, aged 18, printer. Constitution good, little debilitated. Cornea largely nebulous; the epithelium and parts immediately beneath being disturbed. Pupil partially dilates with free use of atropia.

With contracted pupil, cornea anæsthetized; with dilated pupil, nearly free from anæsthesia. No other apparent disturbance in cornea or iris. No perikeratic injection, or inflammation of sclerotic, conjunctiva, or lids. No evidence of paralysis of any part, or anæsthesia of conjunctiva, lids, or face. Pain in central parts of globe.

This patient was under observation for over six months. Shortly after commencement, he took a small quantity of iodide of potassium. No other general treatment was employed.

The pupil was dilated by atropia, and red precipitate ointment* applied within the lids once to three times weekly. Towards the close, the yellow amorphous oxide of mercury, in ointment,† was substituted four times, at intervals of a week.

While the pupil was kept fully under the influence of atropia, progress on the part of the cornea, was very manifest; but as soon as the pupil was allowed to contract, the cornea made no improvement.

This was frequently repeated, and, as in all similar cases, with the same result.

April 13, 1867. Pupil normally dilatable; reflx movements, vision, and accommodation are good.

In this case, contraction of the ciliary ring, without apparent congestion, produced corneal anæsthesia and diminished dilatability of the pupil.

The condition of the cornea indicated stimulation; but this could not take effect until the ciliary ring had been relaxed by belladonna, and the corneal nerves relieved.

* R.—Hydg. Oxyd. Rub., ---------- 8 grains;
Hydg. Chld. Mite, ---------- 12 grains;
Pulv. Camph., ---------- } aa 1 grain;
Zinci Sulph., ---------- }
Axungiæ, ---------- 2 drams;
Misce bene. Sig.—A piece the size of a grain of wheat within the lids.

† R.—Hydg. Oxyd. flavi, ---------- ss dram;
(via humida parati)
Axungiæ, ---------- ss oz.
Misce bene.
Sig.—To be used in the same manner as the red precipitate ointment.

From numerous observations, the above cases have been selected as representing acute and chronic forms of anæsthesia of the cornea, and diminished dilatability of the pupil arising from those disturbances in the ciliary ring specially described, and illustrate the action of belladonna in this class of cases.

Injurious results have not been observed to follow its protracted use. But, when these conditions are absent, mydriatics are not requisite in uncomplicated keratic disease, and often become injurious, by producing atropinism of the eye.

Hence, in affections of the cornea, occurring: *a.* With anæsthesia and diminished dilatability of the pupil, belladonna is indicated. *b.* With normal dilatability of the pupil and absence of corneal anæsthesia, belladonna is not required.

The conditions indicating the use of mydriatics frequently exist to a degree requiring surgical interference to enable the drug to take effect.

Division of the ciliary ring is then often required.

Inasmuch as more or less of the aqueous humor escapes during this operation, the beneficial results are attributed, by some, to diminished intra-ocular tension. By direct experiment it has been demonstrated that relief of corneal anæsthesia and diminished dilatability of the pupil, in these cases, are the result of a thorough division of the ciliary ring, and not due to evacuation of the aqueous humor.

Paracentesis of the anterior chamber may in some cases of this class prove serviceable by diminishing congestion of the ciliary ring, but not otherwise.

In one instance, contraction of the ciliary ring was found to co-exist with glaucoma.

Iridectomy necessarily removed all intra-ocular tension, but failed to relieve the corneal anæsthesia. Division of the ciliary ring fifteen minutes afterwards at once accomplished that result.

The length and title of this paper preclude anything further upon surgical treatment.—*Trans. of Amer. Med. Association.*

WEIMAR CHOLERA CONFERENCE.

The following from a communication from Dr. Elisha Harris to the President of the New York Board of Health, has been long awaiting a place in our columns:

Having been favored with an abstract of the discussions and concluding recommendations of the Cholera Conference that

recently met at the city of Weimar, and having learned from Prof. PETTENKOFER that the full stenographic report of the Conference will be published at Leipzic during the summer, I now lay before the Board of Health a synopsis of the discussions and their conclusions as given in this abstract.

You will recollect the polite invitation that was extended to New York to be represented at that important meeting. It turned out to be precisely such a Conference as the interests of public hygiene required, for the most practical and comprehensive questions were discussed by the leading sanitary scholars of Europe, nearly 60 delegates being present. The following conclusions were adopted, and I beg leave to present them here before giving the synopsis of the debates of the Conference.

CONCLUSIONS AND RECOMMENDATIONS.

I. The Conference expresses as its deliberate conviction that the efforts to arrest and prevent cholera by disinfectants, should be continued in the most energetic manner.

II. Disinfection will be entirely successful only where excremental matters are carefully gathered and kept from being cast about; when attention is given to the cleanliness and the means of health; and when the disinfection is performed by sanitary authorities in a compulsory manner.

III. In places where the entire locality or district cannot at once be disinfected, it is advisable to disinfect throughout the places visited by the previous epidemics of cholera.

IV. The general disinfection should be performed at the proper time, that is, before the epidemic is actually prevalent in town or place. Every house or spot that becomes infected or is suspected to be so, must be kept constantly under the influence of disinfection.

V. In regard to the best substances as disinfectants, though the testing of various articles is not completed, there have been found, to the present time, no more effectual substances than sulphate of iron (copperas) and the carbolic acid; and, as experience proves, we have no other disinfectants that can be employed with greater facility. A combination of both these disinfectants is therefore recommended.

VI. The disinfection of clothing that has become infected by cholera excrement is especially an important matter. For that purpose the Conference recommends that all such clothing be disinfected by boiling in water, or by chemical treatment in a proper solution of "zinc vitrol" (sulphate or chloride of zinc), and the Conference also recommends that special arrangements

be made by which disinfection can be employed in all places, and at any hour, among or for the poor.

VII. For the disinfection of sewers and drains, the Conference advises the trial of Mr. Sauvren's method. [The means used by Mr. Sauvren are not yet fully published, but they are believed to be similar to McDougall's—namely, combination of a carbolic or coal-tar preparations, in a cheap form.]

VIII. If cholera infects any house or spot, it is recommended that, if practicable, the houses so situated in an infected place, or being infected, should be vacated, and their inhabitants should be removed from the infected spot.

IX. It is especially recommended that the ground-water (that is the water in the ground) about dwelling-houses, and all the grounds about habitations of every kind, should be preserved undefiled by any excremental matter of cholera; also, that all drinking water be undefiled and pure, and that where no pure water can be had that the water which must be used should be disinfected by boiling.

Such were the final conclusions of the Conference in reference to the first duties of sanitary authorities, and the people of any town that is threatened by cholera. The discussions were based upon the experience and studies of the distinguished gentlemen who had thus agreed to meet and compare their views, and the results of their observations. The attendants at the conference were from various cities of Germany, Holland, Prussia, Austria, Hungary, and Russia. The history of cholera outbreaks among the troops in the war last year proved marvellously interesting, and conclusive on many points. Next in order of interest and importance was the history of infection by means of water contaminated by cholera excrement. Closely allied to the latter subject was the examination of evidence concerning the discoveries that have been made in regard to the particular means by which the cholera infection is transported and propagated. Lastly and most practically useful was the examination of evidences concerning the proper and best methods of disinfection, and the relations of such means to the control and promotion of cholera epidemics. The chief medical officer to the Privy Council of Great Britain presented the history of the outbreaks of cholera in London in connection with the water of the East London Water Company, which, as Dr. Radcliffe has shown, was contaminated by cholera excrement. In the district where that water was used the epidemic burst forth as by explosion; while, subsequently, in other places it spread by the more usual methods and in the more usual manner. Then again, there were

other instances where the epidemic spared all persons in certain asylums and hospitals who used privies that were entirely uncontaminated by cholera excrement, while the epidemic decimated the classes of inmates that used the latter. The Conference conceded that wells and reservoirs of drinking water were frequently contaminated by the cholera poison by soakage into them of the infectious element from the cholera stools; but Profs. Pettenkofer, Wanderlich, Simon, and others, agreed that drinking water was not the most universally common means of communicating cholera to man. The influence of ground-moisture, or more precisely of the ordinary ground-water, while such water or moisture is receding by drying of the ground after a wet period, was proved by such who daily used the same well water, but who used different privies and frequented different and well separated yards, as we saw the same fact illustrated in two adjacent pavilions on Blackwell's Island, last summer. The influence of different kinds of ground in receiving and propagating the epidemic virus of cholera was examined, and Dr. Pfeiffer, of Vienna, showed the curious course which the epidemic pursued in passing through the great forest country of Thuringen last year; while the delegates from Dresden and some other places showed what conditions of the earth had permitted and favored the spread of cholera on their soil, that covered certain granite rock districts. The outbreaks on Blackwell's Island and the rocky summit of Hudson City, fully bear out the conclusions of the Conference on the subject of cholera epidemics on rocky surfaces, and do not disprove the agency of the surface soil in propagating the virus when planted in such places. Examining the great mass of facts presented by members of the Conference in regard to influence of the ground and its retentiveness of undrained water or of being porous, and, at times saturated and again undergoing a course of drying by evaporation, the more important conclusions seem to be as follows:

1. That porous soils, and any kind of earth that retains and favors the ordinary kinds of fermenting filth, will readily retain and repropagate the virus of cholera when once the germinal virus has been introduced or planted by persons coming from infected places. That the mere altitude of a place is not the question that determines its susceptibility to cholera; that the moisture (ground-water) and the fluctuations of that moisture of a soil by rising and receding (drying), favor the propagation of cholera; that a sewer or drain may become the chief source of infection to some places where there is no soil, or where the ground and everything except the sewers and drains have been disinfected.

2. That Prof. Pettenkofer's use of the term ground-water should be understood, as he intended, to mean the standard of saturation by moisture in the soil, and that grounds which, upon their surface appear to be high and dry may, nevertheless, be saturated with moisture; that is, have an excess of ground-water (or high ground-water), and that the Sanitary drainage and drying which are necessary to protect a soil against repropagating the planted virus or germs of cholera must be deep and thorough. The history and topography of the cholera fields of Halle, Berlin, Zwickeon, Thuringen, Helsingfors, and St. Petersburg supplied admirable proofs of this great doctrine in sanitary drainage.

3. Good proofs were adduced that there are some kinds of soil that seem to be natural disinfectants of cholera virus, and upon which an epidemic cannot spread except in filthy houses, sewers, etc. We have not time to make the abstract of the facts that will illustrate the true theory of this kind of exemption. We can say, however, that it is plainly important that regard should be given to the kinds of earth and materials used for filling up sunken lots, and that even the location of dwelling-places may sometimes be wisely a matter of choice as regards the nature of the soil.

The facts concerning specific disinfection to destroy both the cholera virus and all susceptibility to material for its repropagation in a house or a district were well discussed in the Conference. The negative facts were specially important, for they showed that in a few places, as in the great prison at Halle, the epidemic swept forward regardless of the previous and continued disinfection of the grounds and nuisances with sulphate of iron. But in those instances it was proved that the sewers and drains were not disinfected, and that not only were the infected spots particularly exposed to and connected with such drains and sewers, but that the copperas solution had been relied upon without admixture with carbolic acid, and the powerful antiseptic agents which coal-tar contains. In Berlin there was great success in the use of permanganate of soda, with sulphuric acid added—that is, the success was achieved by the most rapid and powerful oxidization, in the same manner as we last summer disinfected the defiled clothing and bedding of the cholera sick by means of permanganate of potassa. The expensiveness of the method is the chief objection to it. Yet, for domestic and limited applications, it is a perfect method for clothing and upholstery. The fact that with entire unanimity the Conference recommended that the main reliance for disinfection should be

placed in the simpler and powerful agents—sulphate of iron and carbolic acid, which the Metropolitan Board unhesitatingly adopted at the beginning of the epidemic last year—will be amply warrant for out continuing to employ those cheap and effectual substances.

The vital importance of perfect sanitary care of all persons sick or infected with cholera, was illustrated in the history of the epidemic in every city. Disinfection alone, especially the irregular and unsystematic or unenforced applications of disinfection, did not always control the prevalence of cholera; indeed, such exclusive and unmethodical sanitary work often resulted in fatal disappointments. In some cities, as in Erfurth, even the carbolic acid was so freely used in some parts of the town (in privies), that the wells in the vicinity of privies flooded with that disinfectant, yielded water that tasted strongly of it; yet parts of Erfurth were neglected, and cholera was fearfully epidemic there. But it was conceded that in cities in which there was perfect, and systematic and well-regulated sanitary disinfection, combined with perfect care of the sick and of all suspected persons, as was the case in the city of Bristol and some other favorite cholera haunts, the epidemic was controlled, and, by like faithfulness and skill, that it could and should be generally controlled in all civilized cities.

Professor Hirsch presented the arguments and studies that favor the discovery of the precise nature of the poison that produces cholera, and the Conference commended and urged on the inquiries that have already, in the hands of Professors Klob and Thome, last year, resulted in discovering a minute microscopical growth that seems, thus far, to be exclusively produced in cholera excrements, and which obey all the tests for the destruction as well as the propagations of the cholera. The spores of that little growth multiply with marvellous rapidity, and they are not destroyed by ordinary doses of chlorine or chloride of lime, but are killed by sulphate of iron and carbolic acid.

The Conference recommend that scientific naturalists, like the men who are now at work on these questions, should continue their researches. It was also recommended that observers of cholera should carefully study the conditions under which the epidemic is transported from place to place, and also study the relations of grounds, moisture (ground-water), and other local conditions that determine the bounderies of epidemic fields.

It will be observed by these notes, of a discussion that appears to have been conducted with the single object to find out what is known, that there was a clear knowledge of the prac-

tical wants of sanitary officers and governments. The nine propositions which the members of Conference have submitted as their unanimous conclusions and recommendations, I have placed at the beginning of this abstract, as being precisely the kind of information which a Board of Health most wishes to receive, and upon which it can base judicious practices. Fortunately for the good name of your Board as for the safety of the city last year, our practice was, from the first, based upon these doctrines, and the great minds that led in the Weimar Conference were the men that had most aided us in former years to deal with epidemic and infectious diseases. I am happy to learn that the Leipzig report is to be fully illustrated by maps and charts to show precisely what course cholera has pursued in European cities. We may hope to receive copies next month. I regret that the Abstract forwarded by Professor Pettenkofer cannot be entirely translated and placed in your hands to-day. These pages contain the gist of the whole, but the debates touched upon a great many other points. We are a little surprised that some conclusion and recommendation on quarantine was not reached. But, since the fact has been demonstrated that persons who travel away from an infected district may themselves, while yet journeying and not sick, spread cholera, by means of excremental evacuations, it is not surprising that little reliance should be placed upon quarantine regulations as a means of preventing cholera from spreading in Europe.—*Phila. Medical & Surgical Reporter.*

Book Notices.

We have space, in the present number, only sufficient to acknowledge the reception of the following important works:

The Practice of Medicine and Surgery Applied to the Diseases and Accidents Incident to Women. By Wm. H. Byford, A.M., M.D., Author of "A Treatise on the Chronic Inflammation and Displacements of the Unimpregnated Uterus," and Professor of Obstetrics and Diseases of Women and Children in the Chicago Medical College. Second edition, enlarged. Pp. 616. Philadelphia: Lindsay & Blakiston. 1867. Price, $5.00.

Studies in Pathology and Therapeutics. By SAMUEL HENRY DICKSON, M.D., LL.D., Professor of Practice of Physic in Jefferson Medical College, etc., etc. New York: WM. WOOD & Co. Publishers, 61 Walker Street. 1867. Duodecimo. Pp. 201. For sale by W. B. KEEN & Co., 148 Lake Street.

Headaches: Their Causes and their Cure. By HENRY G. WRIGHT, M.D., M.R.C.S.L., L.S.A., Member of Royal College of Physicians of England, etc., etc. From the Fourth London Edition. Duodecimo. Pp. 154. Philadelphia: LINDSAY & BLAKISTON. 1867. Price, $1.25.

Inhalation: Its Therapeutics and Practice. A Treatise on the Inhalation of Gases, Vapors, Nebulized Fluids, and Powders, including a description of the Apparatus employed, and a record of numerous experiments, Physiological and Pathological, with cases. By J. SOLIS COHEN, M.D. Illustrated. Philadelphia: LINDSAY & BLAKISTON. 1867. Price, $2.50. For sale by S. C. GRIGGS & Co., 39 and 41 Lake Street.

Notes on the Origin, Nature, Prevention, and Treatment of Asiatic Cholera. By JOHN C. PETERS, M.D. Second Edition, with Appendix. New York: D. VAN NOSTRAND, 192 Broadway. 1867. Duodecimo, pp. 200.

Epidemic Meningitis, or Cerebro-Spinal Meningitis. By ALFRED STILLE, M.D., Prof. of Theory and Practice of Medicine, and of Clinical Medicine, in the University of Pennsylvania, etc., etc. Philadelphia: LINDSAY & BLAKISTON. 1867. For sale by COBB, PRITCHARD, & Co., 81 Lake St. Price, $2.00.

Hufeland's Art of Prolonging Life. Edited by ERASMUS WILSON, F.R.S., Author of A System of Human Anatomy, etc., etc. Philadelphia: LINDSAY & BLAKISTON. 1867. Pp. 298. Duodecimo. Price, $1.25. For sale by COBB, PRITCHARD, & Co., 81 Lake Street.

Biennial Retrospect of Medicine, Surgery, and Allied Sciences. Edited by Mr. H. POWER, Dr. ANSTIE, Mr. HOLMES, Mr. THOMAS WINDSOR, Dr. BARNES, and Dr. C. HILTON FAGGE, for the New Sydenham Society. Philadelphia: LINDSAY &

Blakiston. 1867. For sale by S. C. Griggs & Co., 39 and 41 Lake Street. Price, $3.50.

Lectures on Diseases of Women. By Charles West, M.D., Fellow of the Royal College of Physicians, etc., etc., etc. Third American from the Third and Revised English Edition. Philadelphia: Henry C. Lea. 1867. For sale by W. B. Keen & Co. Price, $3.25.

Editorial.

Close of the Volume.—The present number closes the Eighth Volume of the Examiner. Severe sickness in our little family circle, prevents us from giving our intended clinical report and some editorial articles. We can, at present, only thank our patrons for their past favors, and express the hope that they may be continued.

Transactions of the Illinois State Medical Society.—The Transactions of our State Medical Society for 1867, are now ready for distribution to the members. The publication has been delayed, at least two months, by the late reception of the report on Plastic Surgery.

Professional Appointments.—The following changes have been made in the Faculty of the Long Island College Hospital: Dr. C. L. Ford has accepted the Chair of Anatomy, and Dr. Foster Swift, that of Obstetrics and Diseases of Women and Children. Dr. Sam'l G. Armor has been transferred to the Chair of Principles and Practice of Medicine. Dr. Austin Flint retaining the Chair of Clinical Medicine.

Notice.—*Prof. Davis:*—I am pained to announce the death of Jas. F. Spain, M.D., in Urbana, Ohio, on the morning of October 13th last. Dr. Spain was a man of superior mental and social qualities, and was known only to be loved. Dr. Spain graduated in Rush Medical College, in the spring of

1860, with honor to the school and himself. He died from an attack of apoplexy of the brain.

D. B. WREN, M.D.

REPORT ON THE SANITARY CONDITION AND PREVALENCE OF DISEASE IN CHICAGO DURING THE MONTHS OF JULY, AUGUST, AND SEPTEMBER, 1867.

By N. S. DAVIS, M.D., Member of the Sanitary Committee.

Read to the Chicago Medical Society.

In my previous report to this Society, ending June 30th, it was stated that the meteorological and sanitary conditions during the preceding three months, had been such as to favor a good condition of public health, and a low ratio of mortality.* The last week in June was represented as hot, oppressive, with south winds during each morning, but cool and bracing with west and north-west winds in the evenings.

The first day of July was clear, cool, and bracing, with a prevalence of north-west winds. The 2d, was ushered in with a hot, oppressive atmosphere, and south wind, which was continued until 4 o'clock P.M., when it suddenly changed to the north-east, became boisterous, with clouds and thunder, but no rain. The 3d, was warm and cloudy, with slight rain in the morning, followed by west wind and copious showers of rain at evening. The morning of the 4th was hot, damp, and oppressive, with south wind. Early in the afternoon the wind changed to the north, the atmosphere became cooler, and the night was cool and clear. The 5th and 6th were moderately warm, sultry, with south and south-west wind, and a drizzling rain nearly all of both days. The 7th, was clear, dry, and cool, with northerly winds all day. The 8th, atmosphere clear, warm, and oppressive, with south wind during the morning. In the afternoon, rain fell, during which the wind changed to the north, bringing a cold, clear atmosphere in the evening; and which was con-

* See MED. EXAMINER, for August, 1867.

tinued through the 9th. The morning of the 10th was ushered in with a strong south wind, hot and oppressive, with showers of rain at midnight. The 11th, was cloudy, damp, moderately warm, with wind, first south-west and then west. The 12th and 13th, mostly clear, dry, and cool, with light winds from the west and north. The 14th, was clear, hot, and oppressive, with south wind all day; but during the night, the wind changed to the north-west, bringing a cold, drizzling rain, which lasted until noon of the 15th, when the atmosphere became cool, clear, and dry, and continued so until the morning of the 17th. From the 17th to the 22d, the atmosphere was mostly clear, moderately hot, with cool nights, and very little wind from any quarter. There were clouds and slight rain on the 19th. The night of the 22d, like the day, was hot, clear, oppressive, with only slight wind from the south. These atmospheric conditions continued until the evening of the 24th, when there was slight rain, followed by thunder and slight rain on the morning of the 25th, with a continuance of high heat and dampness of atmosphere. In the evening, the wind changed to the north-west, bringing first light showers, and afterwards a cool, clear atmosphere, which continued until afternoon of the 26th, when the wind changed to the south, and the heat and dampness again became very oppressive, and continued so until the morning of the 28th. From this date until the evening of the 30th, a strong west and north-west wind prevailed, with a cool, dry, and bracing atmosphere. During the night of the 30th, the wind changed to the south, bringing a copious warm shower at 4 o'clock A.M. of the 31st. The heat and dampness continued until 3 o'clock P.M., when the wind suddenly changed to the north-west, accompanied by an active thunder shower, and followed by a temperature so low as to be very chilly.

It is thus seen, that the prominent meteorological characteristics of July were, frequent changes in temperature, in atmospheric currents, and frequent light falls of rain, with a mean average temperature for the month about ordinary, it being several degrees lower than the mean temperature of July 1866; and slightly above that of the same month in 1865.

In regard to local sanitary conditions, it may be said, that much greater efforts had been made to keep the streets and alleys free from garbage and decomposable materials, and to prevent the out-door privies from becoming full, than in previous years. Yet these efforts on the part of the Board of Health were only partially successful, there being during all the month, in some populous portions of the city, unopened ditches, full privies, and other materials capable of decomposition under a July temperature. The gross mortality for the month was 538, being 168 less than for the same month in 1866, and 113 more than in July 1865. The increase over 1865, is mostly owing to the increase of population, while the excess in 1866 was the direct result of a prevailing epidemic influence, of a choleraic character. This is shown by the following comparison:

	Whole number of deaths from bowel-affections in		
	1865	1866	1867
July,	163	299	236

More than 80 per cent of this large mortality from bowel-affections in July of each year, occurred in children under three years of age. The connection of this excessive infantile mortality with the first high temperature of every summer, is shown by comparing the mortality in July in each year with that of June. Thus:

	The mortality from bowel-affections in		
	1865	1866	1867
June,	20	45	21
July,	163	299	236

A more detailed observation of facts, further shows that a large proportion of the attacks in children commence on particular days, when the temperature of both day and night is high, with an excess of atmospheric moisture. Thus, of 73 attacks of cholera-infantum, diarrhœa, etc., coming under my own observation, during July, 1867, 56 were found to have commenced on the following days, namely, 18 on the 3d and 4th; 10 on the 10th and 11th; 11 on the 13th and 14th; 7 on the 19th; and 10 on the 22d and 23d. By referring to the meteorological facts already given, it will be found that these are the

days preêminently characterized by high temperature, oppressive south winds, and excessive moisture.

The first case of well-marked, spasmodic cholera that came under my observation during the month, was a little girl, in the rear of 351 Illinois Street, who was attacked during the hot, sultry morning of the 4th, passed rapidly into collapse without medical treatment, and died on the morning of the 6th. The next was a man, in the rear of 124 South Jefferson Street, who was attacked with serous diarrhœa on the 11th, which culminated in the full choleraic symptoms during the night of the 13th. Two cases occurred on the 20th: one was a woman in the rear of 331 Fourth Avenue; the other was a child, 2 years of age, in the rear of 24 West Harrison Street. Both these patients passed rapidly into collapse and died. The fifth case commenced on the 22d, in an intemperate man, living at 119 South Market Street. On the 23d, two cases occurred: one, a middle-aged woman, at 197 Van Buren Street; the other, also a female, about 30 years of age, residing at 70 West Indiana Street. Both these were violent cases, and had passed into collapse before I saw them. They died on the morning of the 25th. Another well-marked case occurred, in a woman in advanced life, at 202 Sebor Street, on the night of the 24th. She was placed under treatment early, and recovered. During the same day, a man, at 342 West Kinzie Street, was attacked with cholera diarrhœa, which ended in the development of full cholera symptoms, on the 25th; but he recovered. At 3 o clock A.M. of the 31st, a man was attacked with active cholera symptoms, at 54 Fourth Avenue, but he recovered. The cases here alluded to as cholera, were as well characterized in their symptoms as any cases that occurred during the summer and autumn of 1866, and they were, consequently, reported to the Board of Health.

During the last week of the month, I saw many cases of dysentery, in which the evacuations were bloody serum instead of mucus, accompanied by cool extremities, small pulse, and rapid prostration, constituting what has been called cholera dysentery.

In making inquiries and noting carefully, from day to day,

the exact commencement of cases of cholera-infantum, cholera-morbus, and spasmodic cholera, not only during the month now under consideration, but during the summer months of every year since 1849, I have fully satisfied myself that fifteen out of every twenty cases of these diseases have their first symptoms developed during days and nights when the atmosphere is hot, damp, and deficient in free electricity; or during the night time, in persons while sleeping in small, close, unventilated bedrooms. It is well known to every observing practitioner, who has seen much of cholera-infantum and epidemic cholera, that a large proportion of the attacks commence between midnight and 6 o'clock A.M. And I have gathered sufficient data to show that the impure air of small or overcrowded and unventilated sleeping rooms, is one of the most potent exciting causes determining such results.

August.—From the 1st of August to 11 o'clock A.M. of the 4th, the atmosphere was cool, dry, and nearly free from clouds, with a predominance of west and north-west winds. At 11 o'clock of the 4th, the atmosphere became still, or moved only by a slight breeze from the south, and hot and oppressive. It continued in the same condition until the afternoon of the 9th, when, suddenly, a brisk, cool wind came from the north, with flying clouds and slight rain. The 10th and 11th were cool and dry, with north winds. With the morning of the 12th came south wind and a hot, dry atmosphere, followed by copious showers and sharp lightning in the evening. From the 13th to the 16th, the air was cool, dry, and pleasant, except about four hours of hot, oppressive atmosphere on the afternoon of the 14th. The 17th and 18th, were continuously hot and oppressive, with very slight wind from the south. The morning of the 19th was ushered in by a copious warm shower, speedily followed by a cool east, and, later, north-east wind, with a cool, rainy afternoon. From the 20th to the 25th, inclusive, the atmosphere was cool and bracing, except two or three hours in the middle of each day, which were hot and oppressive. The wind veered each day from south-east in the morning, to north-west and north in the evening. Moderate

showers fell in the evenings of the 21st and 22d, accompanied by fine displays of atmospheric electricity. With the morning of the 26th, came a warm shower, with south wind; hot and oppressive during the middle of the day, followed by copious showers and sharp lightning in the evening. From the 27th to the 30th, inclusive, the atmosphere was cool, dry, and pleasant, with chilly nights. The 31st was cold and rainy, with south-west wind.

It is thus seen that the prominent meteorological characteristics of August were, a predominanee of northerly winds, cool, bracing air, and a full average of atmospheric electricity. There were only eleven hot, oppressive days during the month, and only four of these were consecutive or continuous, one with another. Rain fell on seven different days, accompanied by thunder and lightning on four.

During the first six days of the month, I met with no cases of either cholera-morbus or cholera-infantum, except such as had dated their commencement in July. But the continuous high temperature from the 4th to the 8th was accompanied by quite a number of new attacks on the 7th and 8th. During the warm days and cool nights from the 9th to the 16th, attacks of typhoid fever and dysentery became very frequent, especially among the laboring classes. Some new cases of cholera-infantum and diarrhæa occurred from the 17th to the 19th, and many old cases that had partially recovered were renewed. From this time to the end of the month, most of the new attacks of bowel-affections, both in children and adults, presented the form of dysentery; while typhoid fever continued to be of frequent occurrence.

The only cases of cholera that came under my observation during the month, were the following:—A servant girl was attacked violently, during the hot, sultry night of the 4th, while sleeping in an overcrowded, unventilated room, in the alley in the rear of the Opera House. She was placed under treatment early and recovered. A young man at 44 North Peoria Street, who had just returned from the country, was attacked during the latter part of the night of the 17th. He

was placed under treatment almost immediately and recovered. The same morning (18th) I was called to an Irish laborer, at No. 48 Ohio Street, whom I found in a state of complete collapse, and he died during the same day. He had some diarrhœa since the evening of the 14th, and all the symptoms of violent epidemic cholera supervened on the morning of the 17th. On the morning of the 19th, saw another Irish laborer in the same neighborhood, 77 Ontario Street, who commenced having diarrhœa at noon on the 18th, which developed into full and severe cholera during the latter part of the following night. Although passing to the very verge of collapse, he recovered. The local sanitary conditions in the neighborhood where these two cases occurred were bad. The drainage was very imperfect, several of the out-door privies were full to the surface, and a cow was stabled under the house No. 48 Ohio Street. On the 29th, I was called to see a man, at 645 State Street, who had been attacked with diarrhœa at Racine, about ten days previous. He was brought to the city on the 27th, when his symptoms assumed the character of severe spasmodic cholera. On the 29th, I found him with entire suppression of urine, pulseless, cold, very blue and corrugated on the surface, and all the phenomena of complete collapse. He died soon afterwards. It will be observed that all the foregoing cases, except the one brought from Racine, occurred on days or nights when the atmosphere was hot and oppressive, with south winds.

The gross mortality for the month of August was 697, of which 340 were from bowel-affections, namely, cholera-infantum, 212; cholera-morbus, 7; cholera, 2; diarrhœa, 85; dysentery, 36. From personal observation, I am certain that a large majority of the fatal cases of cholera-infantum were such as had their origin in July and had lingered in a chronic form until some time in August. And, on a strict diagnosis, a large proportion of them should have been classed as dysentery. Compared with the same month for 1865 and 1866, the result is as follows:

1865.		1866.			1867.	
Gross Mort.	Bow.-Aff.	Gr. Mort.	Bow.-Aff.	Cholera.	Gr. Mort.	Bow.-Aff.
464	208	940	376	139	697	340

We thus see, that while July and August of 1867 give a mortality much below the same months of 1866, it is so much above that of 1865 as to indicate a higher ratio in proportion to the population.

We have occupied so much time and space with the meteorological and other details concerning the months of July and August, that we will make only a brief allusion to September. It was characterized by no striking meteorological characteristics. The atmosphere was, a great part of the time, dry, warm in the middle of the day and cool during the night. The rainy days were few, and the amount of rain-fall below the average for this month in this locality. Bowel-affections in young children rapidly diminished, while dysentery and continued fevers increased among adults. This is shown by the following comparison:

	Cholera-Infantum.	Dysentery.	Typhoid.	Typhus.
July,	177	10	9	2
August,	212	37	13	5
September,	82	29	18	4

The total mortality for September was 507; being 232 less than in the same month of 1866, and 161 more than in September 1865. I saw, during the month, only three well-marked cases of spasmodic cholera, one of which passed into fatal collapse in a few hours. The effect of local causes on the general mortality is strikingly illustrated, by comparing different sections of the city. For instance, the total population of the 1st, 2d, 3d, 9th, and 10th Wards in 1866, was 63,747. The total deaths in the same Wards in August and September, 1867, was 190, or 1 to 335 of the population. The total population of 5th, 6th, 7th, 8th, 13th, and 14th Wards, was 69,670 The total deaths in the same Wards during August and September, 1867, was 555, or one to 125 of the population. The first series of Wards embraces the best drained and most substantially built portion of the city, inhabited chiefly by the mercantile, professional, and business classes of the city; while the second series is the reverse, both in sewerage and building, and is inhabited chiefly by laboring classes of Irish and German nativity.

The facts briefly, and perhaps imperfectly, set forth in this report, clearly establish two conclusions, of great etiological as well as sanitary importance:—The first is, that certain atmospheric or meteorological conditions are essential to the production of some of the most important endemic as well as epidemic forms of disease. The second is, that certain local sanitary conditions, relative to sewerage, house ventilation, privy accommodations, cleanliness, and personal habits, are capable of increasing, in a three-fold degree, the injurious and fatal effects of the meteorological conditions alluded to.

We cordially commend the following enterprise to the patronage of our subscribers and readers.—[Ed.

The Half-Yearly Compendium of Medical Science: Being A Synopsis of Practical Medicine, Surgery, and Medical Literature.

The first part of this work will be issued from the office of the *Medical and Surgical Reporter* on the first of January, 1868. It will comprise about 300 pages royal octavo size, and will contain a well-prepared synopsis of the articles in the medical periodicals and monographs, and a general review of the medical literature of the preceding six months, both of this country and Europe.

In the preparation of this work, we will be aided by many well-known writers, among whom are Drs. L. Elsburg, Samuel R. Percy, R. E. Van Gieson, F. D. Weisse, C. F. J. Lehlbach, S. W. Gross, George H. Napheys, J. E. Garretson, W. M. Turner, A. Paul Turner, and others.

The work will be systematically arranged under the following heads—subject to such modifications as time and experience may suggest—and supplied with a *Copious Index* of subjects and authors.

I. ANATOMY AND PHYSIOLOGY.

1. Comparative Anatomy and Zoölogy; 2. General and Special Human Anatomy; 3. General and Special Physiology; 4. Embryology; 5. Pathological Anatomy and General Pathology.

II. MEDICAL PHYSICS, BOTANY, CHEMISTRY, AND TOXICOLOGY.

III. MATERIA MEDICA AND THERAPEUTICS.

1. Pharmacology; 2. General and Special Therapeutics; *a*. Electrotherapy; *b*. Hydrotherapy; *c*. Anæsthesia, etc.

IV. GENERAL MEDICINE.

1. History of Medicine; 2. Statistical Medicine; 3. State Medicine—including Forensic Medicine, Hygiene Dietetics, and Preventive Medicine; 4. Epidemiology; 5. Animal and Vegetable Parasites; 6. Medical Bibliography.

V. CLINICAL MEDICINE.

1. General and Constitutional Diseases; 2. Diseases of the Brain and Nervous System; 3. Blood Diseases; 4. Local Diseases, *a.* Respiratory Organs, *b.* Circulatory System, *c.* Organs of Deglutition and Digestion, *d.* Urinary and Male Genital Organs, *e.* Exanthematous Diseases.

VI. OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

VII. SURGERY.

1. General Surgery—Tumors, etc.; 2. Mechanical Surgery; 3. Orthopædics; 4. Military Surgery—Wounds, etc.; 5. Fractures and Dislocations; 6. Amputations and Resections; 7. Topographical Surgery, *a.* Head, Neck, and Breast, *b.* Eye and Ear, *c.* Nose, Mouth and Throat, *d.* Abdomen, *e.* Genital Organs; 8. Diseases of the Skin; 9. Gonorrhœa and Syphilis.

VIII. VETERINARY MEDICINE.

Terms of Subscription.—Subscriptions will now be received at the following rates:

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S. W. BUTLER, M.D. }
D. G. BRINTON, M.D. } Editors.
115 South Seventh St., Philadelphia.

We earnestly hope that this NATIONAL UNDERTAKING will be heartily supported by the profession. All who are willing to subscribe are requested to fill the following blank, and return to this office, *before the 10th of December*, as the size of the edition of the first number will be governed by the encouragement we receive.

MONEY RECEIPTS TILL NOVEMBER 25th, 1867.—Drs. J. Good, Warren, Ind., $3; R. M. Buchner, Aroma, Ill., 3; T. A. Bunnell, Chicago, 3,75; O. T. Maxon, Chicago, 6; John McHugh, Urbana, Ill., 2; Geo. W. Keener, Venice, Ill., 3; John Bell, Benton Harbor, Mich., 3; R. S. Lewis, Dubuque, Iowa, 3; B. Ragon, Roseville, Ill., 3; C. M. Spalding, Byron, Ill., 3; T. H. Bras, New Boston, Ill., 7; W. Stewart, Otumna, Iowa, 9.

MORTALITY REPORT FOR THE MONTH OF OCTOBER:—

The monthly report is as follows:—

CAUSES OF DEATH.

Accidents,	13	Fever, Scarlet,	3
Angina Membanacea,	2	Fever, Typhoid,	25
Anæmia,	1	Fever, Typhus,	2
Apoplexy,	2	Gastritis,	1
Asthma,	1	Hæmatemesis,	1
Aseitics,	1	Hepatitis,	1
Atrophy,	2	Heart Disease,	4
Birth, premature	9	Hydrocephalus,	4
" still	26	Inanition,	6
" tedious	1	Jaundice,	2
Brain Congestion of,	5	Laryngitis,	1
" Dropsy,	1	Liver, abscess of	1
" Inflammation of,	8	Lungs, congestion of	1
" Softening of,	2	Measles,	4
Bright's Disease,	1	Meningitis,	5
Bronchitis,	2	Meningitis, Cerebro Spinal,	3
Bowels, inflammation of	5	Meningitis, Tubercular	2
Bowels, obstruction of	1	Mortification,	1
Croup,	11	Nephriles,	1
Cerebritis,	1	Old Age,	4
Chills, congestive	1	Opthalmia purulent,	1
Convulsions,	42	Paralysis,	2
Cholera-Morbus,	2	Consumption,	25
Cholera Infantine,	41	Peritonitis,	4
Cyomosis,	1	Pneumonia,	11
Debility,	7	Poison,	1
Delirium Tremens,	1	Phelebitis,	1
Diarrhœa,	11	Scrofula,	2
Diphtheria,	10	Small-Pox,	20
Dropsy,	1	Suicide,	1
Dysentery,	13	Stomach, cancer of	4
Enterites,	8	Tabes Mesenterica,	13
Epilepsy,	2	Teething,	14
Eucephalis,	1	Whooping-Cough,	2
Fever, Bilious	1	Ulcers, malignant	1
Fever, Malignant	1	Ulcers, cancer of	3
Fever, Termittent,	1		
Fever, Puerperal,	5	Total,	428

COMPARISON.

Deaths in October, 1867,	428
Deaths in October, 1866,	1,170
Decrease,	742
Deaths in September, 1867,	507
Decrease,	79

AGES OF THE DECEASED. — Under 5 years, 326; over 5 and under 10 years, 17; over 10 and under 20, 19; over 20 and under 30, 34; over 30 and under 40, 31; over 40 and under 50, 22; over 50 and under 60, 17; over 60 and under 70, 7; over 70 and under 80, 3; over 80 and under 90, 5; still born and premature, 27; tedious births, 1; unknown, 9. Total, 428.

SEXES.

Males, 230	Females, 198	Total, 428

COLOR.

Colored, 8	White, 420	Total, 428

NATIVITIES.

Chicago, 224	England, 6	Scotland, 2
Other parts U. S., 65	France, 1	Sweden, 8
Austria, 1	Germany, 42	Switzerland, 2
Belgium, 1	Holland, 7	Wales, 2
Bohemia, 4	Ireland, 40	Unknown, 1
Canada, 8	Norway, 7	
Denmark, 1	Prussia, 6	Total, 428

CHESTNUT LEAVES IN PERTUSSIS.—In the *Cincinnati Lancet and Observer*, Dr. J. S. Unzicker, of Cincinnati, reports the use of a decoction of leaves of the chestnut, *Castanea Visca*, in hooping-cough. He says:

I have given it a fair trial in about thirty cases, and feel satisfied in saying that at last a remedy is found to cope with this disease. In all of these cases it gave decided relief the first two weeks. The cough is cut short, and patients rest easier through nights, and the decline of all symptoms from that time on is very rapid. My method of using it is as follows: take from ℥iij. to ℥iv. of the leaves to the pint of water; let it come to a boil, then pour the whole into a teapot, without straining, and let them drink occasionally—either cold or warm—and as much as they will through the day and at bedtime. Childern, I find, like to drink it, even without sugar, which I consider best, and have that way administered it to infants, without the least difficulty.

WINTER RETREAT FOR CONSUMPTIVES.

A large house is being fitted up under the superintendence of DR. PRINCE, in Jacksonville, heated by furnaces, so arranged as to admit of the purification and medication of the air of the house, producing an artificial climate, not only favorable for the most speedy recovery of patients undergoing surgical treatment, but also adapted to secure the best atmosphere for those affected or threatened with pulmonary complaints.

It is expected that the repairs and alterations necessary for this purpose will be completed by the first of December.

Address DAVID PRINCE, M.D.,

dec1t. *Jacksonville, Ill.*

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